The effect of the Japan current makes the mean temperature about equal to the climate of the city of Washington, District of Columbia. It is an unusual occurrence in midwinter for the mercury to fall lower than 15° below zero, and it seldom gets down to zero.

The precipitation throughout this portion of the territory is very great, not so much in the quantity of water that falls as the long and incessant rains that prevail at all seasons of the year. It is not unusual for rain to continue without cessation for 1 or 2 weeks, but it is more of a drizzling character than a genuine downpour. The rains are usually warm and mellow, and one may be exposed to them for days at a time and not feel that disagreeable chilliness that is experienced during the rainy season in the Puget sound country and the Pacific coast states. It is claimed by many of the whites and natives that there is less rain in this part of the territory than about Juneau and Sitka.

It must be borne in mind that this peculiarity of climate, both as to the mild and even temperature and the continued rainy weather, is confined to the section embraced in my district. When once in the interior, or over what is known as the coast range, at an average distance of 20 miles from the sea, the climate is dry, with little rain except during the summer season, and the thermometer often ranges as low as 50 and 60 degrees below zero in winter. It may be remarked that a thunderstorm or lightning is rarely ever witnessed in southeastern Alaska, while in the interior they are of frequent occurrence and of the most startling character. The summer of 1890 was an exceptionally dry one, and for 1 or 2 weeks at a time little rain fell; at such times the atmosphere was as pure as crystal. During the rainy weather it is often foggy, and when the sun comes out for a day or two, long lines of misty clouds cling to the sides of the mountains, sometimes obscuring the lower portion, and having more the appearance of smoke than mist. Above these lines of clouds the mountains stand out in their fresh, green foliage, brighter in hue, one imagines, after emerging from their misty bath.

ROADS AND TRAILS.

In the whole extent of the territory visited by me there is not a mile of road, and I know of but 4 trails or portages in this whole district: one of about 8 miles between Tolstoi and Karta bay; one of 25 or 30 miles between Karta bay on the east central side of Prince of Wales island and Klawak on the west side; another from Nichols bay near the southern end of this island to Klinquan, of perhaps 8 or 10 miles, and another from Rocky pass on Kuiu island to Chatham strait on the opposite side, a short portage of a couple of miles or so. This partially explains why but 4 horses were found in my district. One was at Port Chester, the home of the Tsimpseans, and it had been turned loose to enjoy the freedom of the country for the services he had rendered before leaving his old home in British Columbia. The other three served their master on the only farm in southeastern Alaska, near Fort Wrangell.

GLACIERS.

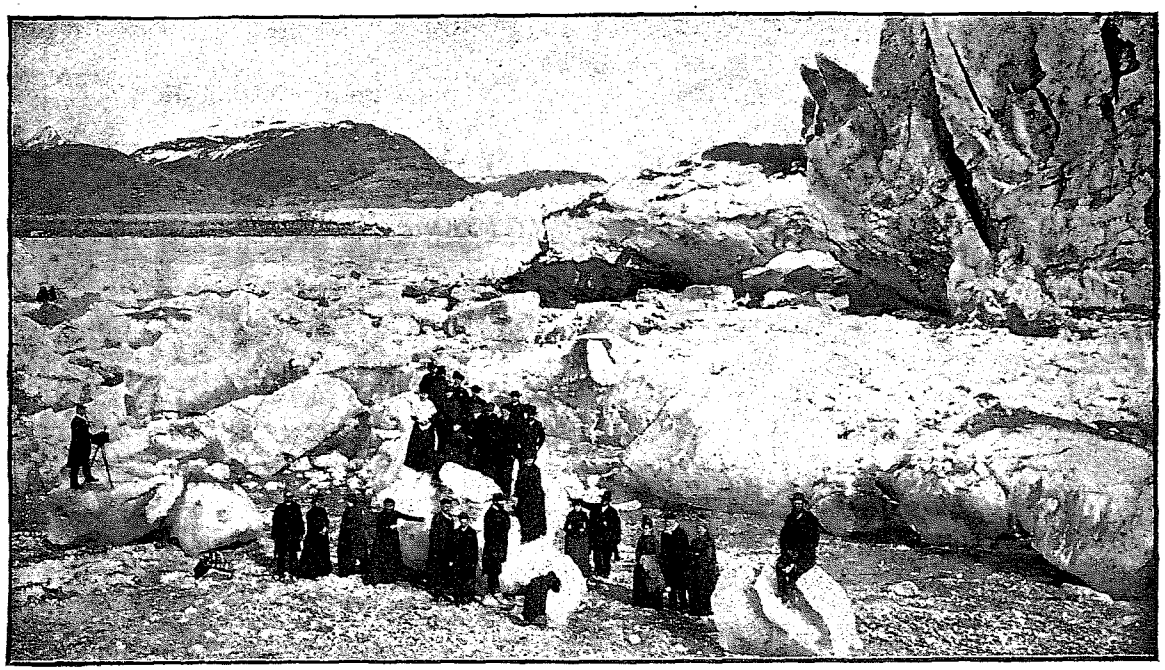
There is but one extensive glacier in this part of Alaska, yet upon the tops of several of the highest mountains may be seen a crown of ice and snow, the remnant of what was a mighty glacier not many years ago.

Up the Stikine river, the only navigable stream in this section, about 25 miles from Fort Wrangell, there is one of the most extensive glaciers found within the whole of southeastern Alaska. It is in British territory just beyond the line, and extends back into the mountains 50 or 60 miles.

DEEP AND NARROW CHANNELS.

The route taken by the Alaskan steamers through this portion of the territory is what is called the "inland" route. In many places the narrow channels seem to barely admit of the passage of the ship, and the curves are often so abrupt that the traveler is puzzled to discover the point of exit from the lake-like sheet of water through which the steamer is smoothly gliding at the time. Yet, within this whole district, there is but one place where the usual speed of the vessel is slackened, namely Tongass narrows, and here it is only upon flood tide that enough water is found to effect a passage. This is a most interesting locality, for it is in the heart of one of Alaska's deepest solitudes. In this stretch of 20 miles one scarcely knows which commands the greatest admiration, God's handiwork in nature or the consummate skill of the navigator as he guides his floating palace through the swift flowing tide and the labyrinth of shoals and rocks into deeper waters. It is in these narrow channels along the shore that the greatest depths of water are often found.

The water in these channels is kept at a low temperature by the quantities of ice and snow that are constantly melting and flowing down the mountain sides. The innumerable waterfalls and cascades which are seen throughout this grand stretch of country come thundering down from snow-riven summits, affording a glorious sight to the observer of nature's grand panorama in this wonderland. Owing to the low temperature of these waters the natives have the greatest fear of being swamped while sailing in their canoes, knowing that if they are capsized they are almost certain of becoming benumbed from exposure to the waves. It is their keen dread of accidents of this nature that has made them such good judges of the weather. It is a maxim among the whites who travel in this country in small craft to never urge a native to attempt a journey on the water when he advises otherwise. It sometimes happens, however, that the most cautious among them are caught in sudden squalls, and when thus



ON THE GLACIER'S EDGE.

overtaken they display, if left to guide their canoe according to their own judgment, the best seamanship and the steadiest nerve. The skill with which the natives will, by a graceful turn of the paddle, present just enough of the broadside of his canoe to escape a white and seething "comber" as it rolls in his wake is indeed marvelous and challenges a lively admiration for the dusky navigator.

CANOES.

The highest ambition of the average native of this section is to possess one of the canoes made by the Haida of Prince of Wales island or by members of the same tribe living on Queen Charlotte islands. They are made from the red cedar tree, sometimes 70 or 80 feet long, and the largest are capable of carrying 30 or 40 people. They are similar to most native canoes, hewed out of logs, but the bow and stern project 2 or 3 feet beyond the line which runs, with almost perfect symmetry, the whole length of the sides of the canoe. The manufacture of these canoes is a tedious undertaking, but when finished they are of such uniform thickness and perfect curves that when launched they ride the water with grace and buoyancy. It is impossible for these canoes to sink, for the extensions at either end serve as "righters", and when capsized, if freed from mast and sail, they will at once assume an upright position, and if filled with water will not sink below the surface.

MISSIONARY WORK.

I can not close my report without commending the efforts of the missionaries in this part of the territory. Nearly every tribe has had men and women among them whose devotion and self-sacrifice has won from the natives their confidence and esteem.

The work of the missionaries among the natives of this section may be said to have commenced about 10 years ago, when Rev. Sheldon Jackson visited the different tribes with a view to permanently establishing missionary stations. The missionaries he selected for the different tribes proved to be adapted to the work, and among the Stikines, the Tongass, the Hanega, and Haida I found earnest and devoted native men and women who were following the teachings of Christ, and whom religion was doing more to keep within peaceful pursuits than all the combined forces of military and civil government. From my intercourse with these people I have been impressed with the good the missionaries have accomplished, and feel that too much can not be said in praise of the men and women who are laboring in this country to bring these people to a higher plane of civilization.

THE FIRST DISTRICT OF ALASKA FROM PRINCE FREDERICK SOUND TO YAKUTAT BAY.

BY ELIZA RUHAMAH SCIDMORE.

Between Prince Frederick sound and Yakutat bay lies the region of Alaska's finest coast and mountain scenery, its greatest glaciers, its richest mineral region, and its largest settlements. Within it centers all that spirit of progress which has gained for the territory its meager political blessings, which has made its resources widely known, developed its industries, attracted settlers, marked the map with new towns, and dotted the shores with mining camps and canneries that are the beginning of future towns. Unlike other districts of Alaska, its white population is gaining in permanent elements from year to year.

While there are 3 large salmon canneries at the head of Lynn canal and 1 on Baranof island, an oil and guano factory on Kenasnow island, and a few salteries, the fisheries are secondary to the mining interests of this region. The discovery of gold near the site of Juneau in October, 1879, marked the turning point in Alaska's fortunes. The miner's pick opened the way, and it was chiefly the insistence and efforts of Juneau mine owners that secured that concession from Congress establishing a skeleton form of territorial government May 17, 1884.

Although the United States had no mining laws for 17 years after the discovery of gold in California, those laws were not extended to Alaska until the passage of their organic act, 8 years after the first placer miners had made their camp at Shucks, in Windham bay. With the American citizen's inborn principle of self-government, the remote camps maintained the semblance of law and order. The rights of property were admitted, but the fugitives and renegades who purposely sought these regions beyond civil law often made it difficult to maintain these rights for the first half of this decade.

The homestead and pre-emption laws having been withheld from this territory, the most desirable class of settlers have been barred out; but in the face of all hindrances the section has gained a population of nearly 2,000 whites, and 2 considerable towns have sprung up on Gastineaux channel. Great sums have been invested in mining plants in the territory, and a large amount in gold has been taken out. Over 500 mineral claims have been filed and one-third of these patented. The independent miner, working his one small placer claim, has been succeeded by stock companies and rich syndicates, who conduct quartz and hydraulic mining on the largest scale, and are constantly enlarging their plants. The general land laws not being extended to this territory until 1891, the agricultural possibilities of the region could not be proven. As there were no titles to any other than mineral lands, citizens had only a squatter's right to their homes, and insurance companies refused risks. With no form of municipal government provided, all public improvements have been at the expense of the few public spirited citizens. A rigid enforcement of the timber laws, designed to protect the arid, treeless prairie country of the western territories, has worked against the development and best interests of this densely forested region. Strict prohibition laws are decreed for the whole terrtitory but are not respected, and can not be enforced in this section, where whisky smuggling is as fixed an occupation or industry as mining.

The scenery of the region is as much a factor in its wealth and prosperity as any of the material industries or portable commodities. Its fame brings thousands to visit the coast every season, and this tourist travel dates from an initial excursion party led by General Nelson A. Miles in 1882. The largest ocean steamers may ply on the inside passages of the northwest coast, and 4 trips are made from Puget sound during each of the 3 summer months, the ships touching at Fort Wrangell, Juneau, and Sitka, visiting many canneries and going into Taku inlet and Glacier bay. The steamship company began to cater to this travel in 1884, and since that time it is estimated that more than 10,000 tourists have made the great loop along the coast and through the islands. It is easy to see that this travel is only in its beginning, and that southeastern Alaska is the great yachting, hunting, fishing, camping, and summer pleasure resort of the future. Little attempt has been made to tempt or encourage this travel by the inhabitants of the settlements, but in time the summer hotels, the small interisland steamers, the bridle paths, and guides will come.

Eastern and European geographic societies have considered Alaska a fit region for exploration, and have sent out expeditions, and explorers have come under less eminent auspices. Very often the explorers found that Russians and Hudson Bay company agents had anticipated them by half a century, and they have been hospitably entertained at mining camps in the heart of the presumably undiscovered country. The prospector has covered much of Alaska in his search, but there is abundant field for scientists on the untrodden peaks, the unknown glacial fields, and the mineral belts, which the prospector has only scratched here and there. The government has done little in the way of land exploration and survey, ethnological or archæological study, in this most interesting country, and the coast and geodetic survey, although diligently at work for 10 seasons, has not yet completed the survey of the continental coast line as far as Yakutat nor charted the routes of commerce among the islands. To thoroughly survey the archipelago will be more than one coast survey steamer can do in several years.

SCENERY IN SOUTHEASTERN ALASKA.

The ordinary route of commerce along this coast rejoins the mainland shore at Prince Frederick sound and follows a bold mountain wall all the way to Chilkat, save where the bar at the head of Douglas island compels the detour of its shores after leaving Juneau. The shores grow bolder, the snow fields are vaster, and glaciers gem the range as they follow it to the northward. As the several mountain systems of the coast converge and make a great curve westward the heights increase, rising finally to the group of lofty peaks in the Fairweather region, and then to Mount St. Elias, the southern sentry of a great army of peaks that stretch northward.

The 3 great islands, Admiralty, Chichagof, and Baranof, have their mountain systems, but except as the prospector has searched their shores and followed their water courses, nothing more is known than their snowy peaks and overlapping ranges can declare. Their real outlines, their indentations, and their areas all remain to be discovered.

Remnants of the great glaciers of prehistoric times that carved out all these channels and canyons, hewed down the mountains, chiseled their sides, and made all their landscapes ready for nature's richest decoration, remain as the crowning attraction of this district. The 5,000 living glaciers, which Prof. John Muir estimates as belonging to the coast region of Alaska, all lie between Prince Frederick sound and Cook inlet. Hundreds of them descend nearly to the level of the sea, and over 25 discharge icebergs directly into tide waters. The glacial record is plainly written on every mountain side, and everywhere one may see glacial work in progress. Wonderful tidewater glaciers, such as otherwise one must go to Greenland or the Straits of Magellan to see, are here easily accessible to luxurious pleasure travel. A 4 days' voyage along the river-like reaches of the coast conveys one from the Puget sound cities to these fiords, barred by palisades of ice that rise far above the masts of the largest ships that steam close to them. Masses of ice many times the size of the ship are detached with crashes, thunders, and roars; ice cliffs topple and sink into the water; floating ice covers the surface for miles, and icebergs float away and ground on beaches, where the forest trees trail their branches over these dazzling monsters.

All this region rejoices in as dense a mantle of vegetation as the rest of the coast region north of the United States boundary. The heavy precipitation, the mild winter temperature, and the long, hot summer sun force luxurious vegetation. Forests cover all the land from water's edge to snow line, save where the rock is too perpendicular for a seed to lodge or a glacier fills ravine or canyon. No forest fires ever devastate these shores or darken the air, and the scars of a landslide are quickly covered with green. Every tree is moss hung, and moss-grown veterans of the forest hold beds of ferns and plants on their higher branches, and trees smother and maim one another in their rank growths.

There is the same flora from Dixon entrance to Mount St. Elias and no difference in the character of the forests. Menzie and merton spruce, with scattered red and yellow cedars, cover the shores as far as one can see. Only the yellow cedar has much value, and it has not yet been found in sufficiently compact bodies to reward any attempt to manufacture it into lumber for general use or export. Its darker foliage marks it easily among the other growths, and its plumy, willowy, tasseled branches grow raggedly and uneven as compared to the rigidity and symmetry of the spruce. The Indians kill many of these cedars by stripping them of their bark, the inner coating furnishing them with a fiber that serves all the purposes of rope, which they weave into mats, cloaks, and baskets, and the trunk is shaped into canoes.

For the first 1,000 feet above sea level the forests are choked with the densest undergrowth, a jungle of bushes covering the mossy pitfalls of logs beneath. Above that level is a belt where ferns and mosses riot and the giant cedars and hemlocks spring straight as columns or shafts in a vast cathedral, where there is always a dim green light and the dew and moisture left by tangled clouds. The foot sinks in and springs from this thick-piled carpet, and one treads and climbs with muffled steps. From the timber line, from 2,000 to 2,500 feet above the sea, there are the wildest fantasies in trees, wind-swept, gnarled, and crouching cedars and hemlocks borne down by winter snows, until what should be a lofty tree spreads flat like a mat, a springing mattress, covering many square yards of ground.

Wild flowers grow with a luxuriance not to be credited until one has seen the carpets and beds of flowers in some canyon or has waded through the acres of blossoms in some mountain meadow. There are 3 varieties of orchids found in this region, the rattlesnake plantain and 2 hybernaria, and the wealth of yellow flowers is as strangely significant of the yellow metal hidden beneath them as in California. 3 buttercups, the arnica, mimulus, hawkbit, yellow geum or alpine geranium, jewel weed, golden rod, yellow violets, and yellow epilobium complete the golden bouquet. The range of blue flowers is as wonderful, and great bluebells, with cups more than an inch in length, alpine gentian, pansies, asters, lupin, violets, monkshood, fleur de lis, and forget-me-nots star the beaches and the heights. Angelica, grass of parnassus, smilacina, streptopus, spirea, daisies, anemones, violets, cyclamens, bunchberry and thimbleberry, bryanthus, and the exquisitely fragrant moneses garland and deck the earth with their white blooms. The black Kamchatka lily (fritillaria) is a royal and most fascinating flower, and the rich tones of convolvulus, the rosy cups of the dwarf mountain laurel, and the pale pink buds of the heathery bryanthus brighten acres of canyon slopes and mountain meadows. Epilobium grows rankly and dyes the youngest moraines with its vivid crimson. The devil's club, reaching its thorny stalks 12 and 20 feet to spread its large thin leaves to the sun, and the great skunk cabbage (Lysichiton Kamschatcensis), unfolding leaves 5 and 6 feet in length and looking like a banana tree

half buried, give a tropical look to these forests. In June and July the weighted blueberry bushes give a tinge of new color to far reaches, and the salmon berries hang in red ripe and gorgeous yellow clusters overhead. The ground raspberry, the bunchberry, and the moroshka succeed it, and in places wild strawberries grow luxuriantly.

The prospector sinks in brush, mosses, and pitfalls of logs. Mosquitoes and gnats are man's only pests, and the only other living things are mostly worthy of a hunter's aim. Mountain sheep in the Sumdum region, mountain goats everywhere, and black, cinnamon, and grizzly bears afford the hunter of big game sufficient incentive. Black-tailed deer, small red deer, wolves, and marmots abound. Grouse, ptarmigan, geese, swans, red head, teal, and mallard ducks, eagle, and snipe invite the gunner. Huge crows croak in the trees and sidle over the beaches at low tide, hunting their daily clams, and all along the shores one may hear the exquisite song of the russet-backed thrush. Hummingbirds nest near Sitka, and one drummed in my ears in a canyon beside Muir glacier.

The marine life is even richer, and in forms ranges from shrimps to whales. The salmon is omnipresent, but this staple, a little cod and halibut, and herring oil are all that figure in the list of exports. Sea otter were exterminated during the free fisheries of 1824–1834 and have rarely reappeared among these islands and on the coast below Yakutat. Hair seals abound in the waters of Cross sound, or Icy straits.

Of the 4,737 Thlingits of Alaska few live beyond Yakutat or below Prince Frederick sound. While living in permanent villages and enjoying trade with the whites ever since the beginning of this century the most astonishing changes have come over these people within 10 years. Closer trade relations, resulting from the establishment of so many canneries, have brought them more in contact with the whites, and they have been almost too quick to lay aside their old ways and adopt others. Wars and uprisings are wholly a thing of the past; witchcraft and slavery have about disappeared; cremation has given way to earth burial; the one lodge with a central fireplace where several branches of one family lived under a patriarchal rule, has given way to log cabins or clapboarded and bay-windowed cottages; the blanket is cut and sewed into a fitted garment, and ready-made clothing is the men's usual garb. Government schools and mission schools have taught the young generation, and the mines, canneries, and sawmills have been so many industrial schools for the elders. These intelligent and industrious Thlingits were never to be confounded with the plains Indians, and are far from being a savage or uncivilized people. It is the Thlingit's aim to dress and live as the white man, and he fills his home with beds, tables, chairs, clocks, lamps, stoves, and kitchen utensils, and even buys silk gowns for his wife. He is no longer picturesque, distinctive, or aboriginal. Even his canoe has cotton sails instead of the old bark mats, and the oar works simultaneously with the paddle. The blanket and the beaver skin are not currency nor units of value, and he occasionally hoards silver in sums ranging from $8,000 to $10,000. They have been keener than the whites in seeing the possibilities of the tourist trade and sell their heirlooms and the crudest copies of their heirlooms for fabulous sums. Each year the cedar-bark baskets are more coarsely woven, and the traders' dyes have long replaced their own soft and harmonious colorings. They weave Chilkat blankets of coarse German yarn instead of the silky fleece of the mountain goat, and they manufacture antiques, even stone-age relics, with the shrewdness of Europeans. The Thlingits borrowed much of their art and ornament from the Haidas. Potlatches are now comparatively rare, and recently a mock war of reprisal and revenge between the Hunas and Sitkans showed that they were able to carry it out as a ceremony and dramatic entertainment illustrative of old customs. The winters are given up to rest, and recreation of milder kinds than of old, card playing, dancing, and other travesties of the white man's ways, delight them. Soon there will be only the color of the skin to distinguish these fishermen, miners, and day laborers from any others around them, and already the children at the Sitka mission school resent being called Indians by the tourists. "We are Alaskans", they explain.

The accompanying reports illustrate some of the peculiar customs of the people and show the spirit which animated them a few years ago:

REPORTS OF G. C. HANUS, MASTER, UNITED STATES NAVY, ON DISTURBANCES AMONG CHILCAT INDIANS.

47TH CONGRESS, 1st Session. } HOUSE OF REPRESENTATIVES. { Ex. Doc. No. 81.

CHILCOOT, ALASKA, July 1, 1881.

SIR: The following is a detailed description of the fight which has recently taken place among the Chilcats. I shall report the whole story, because it is not only in my opinion true in every particular, but also because it illustrates many remarkable traits of Indian character. The cause of the disturbance was, as usual, hoochinoo. The Chilcats are divided into 2 tribes and subdivided into 4 families, namely, "Cinnamon Bears", "Crows", "Wolves", and "Whales". The first of these is considered as being the highest in rank and descent. The members of these different families intermarry freely, but even marriage does not absolve the individual from allegiance to the family to which he or she originally belonged. The children belong to the family of the mother. Shatevitch, the head chief of the Chilcats, is a Cinnamon Bear; he is very friendly to white people and exceedingly anxious for peace, though in his younger days he was known as a fighting chief. When the present disturbance commenced he was absent in the Stick country.

A Crow, by the name of Gancheo, brought a barrel of molasses to the village (he had bought it of the Jew trader, Martin, at Rockwell, Alaska) and gave a feast. The usual results followed, all the Crows getting drunk. Toohokees, a Whale chief, received a heavy blow from a drunken Crow for refusing to participate, but being sober he took no notice of it and retired to his house. His first wife, a Crow woman, was angry that he should have refused the hospitality of her family, and being drunk, entered a house where she

THLINGIT GIRLS—EFFECT OF CIVILIZATION.

found a nephew of her husband's drying some seaweed. She stepped up to him and taking the seaweed from him threw it in the fire. The young man noticing her condition paid no further attention to her, merely asking her if she thought that he and his wife were slaves. This quiet conduct on his part exasperated the woman and she commenced abusing him to the best of her ability.

Toohokees' second wife carried the report of this slight difficulty to his first wife's mother, very much exaggerating and misrepresenting the affair. The old woman made her appearance and brought up old troubles which had arisen on account of ill treatment of her daughter, exasperating him. He got a knife and cut her head badly; he then bit off a portion of the wounded scalp, throwing it and the woman out of the house together.

Chilcat Charley, nephew of the old woman, witnessed this assault, and, in order to avenge his aunt's injuries, he went on the street and using his knife cut the first 3 Whales whom he met. One of these was Toohokees. A general fight ensued, during which Toohokees killed a young Crow chief by stabbing him.

According to the Indian custom, it was now necessary that a Whale of equal rank should be killed to make things even; so Toohokees detailed his nephew to die for his family. The young man accordingly dressed in his best suit of clothes and commenced dancing the peculiar death dance the people indulge in when they die for glory, as they consider death under such circumstances; but the Crows refused to shoot him, saying that he had done nothing, and demanded the life of his uncle Toohokees, but the latter would not show himself. Both parties commenced firing at each other, and one of the Crows was badly wounded.

The Crows again called for Toohokees to come out and die and thus end the fight, but he still refusing a constant firing was kept up all night. As both sides were sheltered no one was killed. Whenever Toohokees came forward his wife, a Crow woman, protected him by remaining in front of him. She was the cause of the disturbance; but being now sober, she declared her intention to die with her husband. In the morning the latter consented to die. So his wife came out with him and requested her people not to kill him until he should descend to the ground, since she was afraid that his body might be bruised if he fell from the top of the doorway. The Crows regarded her persistent protection of her husband as treachery to themselves, and one of them killed her. Toohokees, her husband, and all the Whales, then retired into the house to permit the Crows to carry off the murdered woman, because after death she belonged to her own tribe. An armistice was then agreed upon until after the cremation of this woman. The next morning Shatevitch, with a party of Crows, arrived from the Stick country and found the opposing parties ready for another fight. Sidnootz and his sister, two of the Crows who had just returned, on learning of the death of their friend, at once joined in the fight. Shatevitch endeavored to stop the fighting, but was unsuccessful. The sister of Sidnootz tried to entice Toohokees out of his house by inviting him to come out and kill her, reminding him of an old feud which had never been settled between them and could be disposed of now. Toohokees killed her from inside the house by shooting her through the heart. Her brother Sidnootz then rushed forward to revenge her death, but, being wounded, had to be carried back.

Toohokees now came out and commenced to dance the peculiar death dance spoken of before; a number of Crows fired at him, slightly wounding him; he dropped and feigned death. It seems that when a person is killed in their most peculiar struggle all parties stop fighting until the dead can be removed. Sidnootz came forward to look at his enemy, when Toohokees jumped up and shot him through the heart, killing him instantly. Toohokees then took a keg of powder, a bag of bullets, and a bag of caps and retired to the woods, accompanied by some of his friends, and commenced firing at the Crow houses, threatening to kill every Crow before he died. During the firing another woman was wounded. Toohokees' mother, sister, and uncle, who were left in the house alone, considered that he was a coward not to die after having killed so many people; so, for the credit of the family and that it might not be permanently disgraced, they dressed up in their best clothes and came out one at a time and were killed one after another. Shortly after this Toohokees was killed, having been several times wounded first.

The above is the record of the fight, and all other points are discussed in my general report on affairs here.

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CHILCOT, ALASKA, July 1, 1881.

SIR: I have the honor to report that, in obedience to your orders, I arrived at Chilcot, Alaska, at 7:10 p. m. on June 25, and learned that negotiations for peace among the opposing factions of the Chilcots had failed, and that fighting would be resumed on the following day. The Chilcots were afraid to go as messengers, but finally, through the influence of their chief, the Chilcot doctor, 3 men volunteered. I sent for Shatevitch, the head chief of all the Chilcots, the leading man among the Crows and Whales (the two opposing factions), and all others whom I had orders to invite to Sitka. While waiting for these people to come down I interviewed the Chilcot doctor, and found that he was in fear of his life because he had told Lieutenant Commander C. H. Rockwell of the troubles in Chilcot, and I could obtain no information from him. I found that this man had exerted his influence in the interest of peace, and that there were no complaints against him whatever. Mr. George Dickenson, who keeps the Northwestern Trading Company's post at this station, is a man easily scared, and I found him and his Indian wife thoroughly frightened on account of the serious difficulty at the upper Chilcot village. It was impossible to get a precise statement from this man. Nearly all his information consisted of vague reports and rumors.

Nearly all the trouble in this country is caused by hoochinoo made from molasses. The Northwestern Trading Company have sold none since the commencement of the fighting, and are moving the quantity stored here by the steamer Favorite this trip, so that in future, if other parties do not introduce it, one fruitful source of trouble will be removed.

I next interviewed the man whose brother hanged himself in Sitka; after thoroughly explaining to him your action in the case, he expressed himself as much pleased with what you had done and wished me to thank you; also, that he would be satisfied with whatever you should decide as a just settlement, but that he alone was irresponsible, since the head of his family, Donowak, who is chief of the two lower Chilcot villages, is at present absent in the Stick country.

When the news of the suicide first arrived Donowak is said to have made some remarks blaming the whites for not punishing the man who caused the death of their kinsman, but on learning of your action in this case he must have been thoroughly satisfied, as just before he left for the Stick country, the trouble in Chilcot having commenced, he called a council of his people and told them to protect the trader and his property and to die in his defense if necessary. Kokee, an Indian who it was reported had threatened the trader, came to the store and slept there to afford protection, if necessary, when the serious trouble at the upper village commenced. This Indian is also absent in the Stick country. In view of the fact that Donowak and Kakie are absent it would be useless to send the brother of the man who hanged himself to Sitka. The Chilcot doctor told me he would go if I ordered him, but as the other leading men of his tribe were absent he did not wish to go just now. Shatevitch, the head chief of the Chilcots, sent word to the trader not to be afraid, but should any one make threats to send him word, and that he (Shatevitch) would have to be killed before the trader should be harmed.

The messengers returned from Chilcot on the morning of the 27th ultimo and reported that all the people sent for were coming down; but as they had not arrived by the evening of the 28th, I concluded they were not coming, and being thoroughly convinced that many foolish and vague rumors which were reported to me were false, I decided to see the leading men, even if I had to go to the upper village.

In company with the interpreters I crossed the trail to the lower Chilcot village, when, just as we were embarking in canoes, Shatevitch arrived with Katnatz, a young Crow chief, and several other men. He apologized for not coming sooner. He was giving a feast when he received my message, and informed me that he had brought leading men of one faction only; that the others could not come, as, being at the upper end of the village, they could not pass the blockade. I learned that 8 persons had been killed (4 Crows and 4 Whales), several had been wounded, and 1 of the wounded Crows, it was expected, would die. The trouble was the result of drunkenness, and I learned that the molasses had been furnished by the Jew trader, Martin, at Rockwell. Shatevitch explained that when the fighting first commenced he was absent, and that he had done all he could to promote peace. He also said this was the greatest tribal difficulty they had ever had.

I delivered your letter and had it interpreted, but I saw that no settlement could be made of the matter unless both sides could be interviewed; so I determined to go to the upper village with the interpreters. The latter is about 25 miles from the lower village, and can only be approached in small canoes. The current is swift, and the water in some places so shoal that even the canoes ground frequently. Mr. Brodock, a photographer, who had come here for the purpose of taking pictures in the upper village, volunteered to go with me, and learning the Indians had been expecting him I permitted him to go.

We arrived at Chilcot at about 9 o'clock in the evening and were hospitably received by Shatevitch, who had sent the young chief known as Murderer to receive us. A large house in which the chief keeps his treasures had been prepared for our reception; a fire had been built; an American stove for cooking purposes was brought in, and we were furnished with dishes, blankets for beds, and toilet articles. Servants were detailed to wait upon us, and some 60 callers paid their respects within a few minutes of our arrival. Our house was guarded during the night by some one sent by Shatevitch. In the morning about 100 people assembled in the house, but I found they were all Crows, and was informed that the Whales did not dare to pass the barricades. I endeavored to get them to select men so as to have their troubles settled by you in Sitka, but though they listened to all I had to say with respectful attention and wished me to thank you, they declined to go. I then made them a long speech and urged them to stop fighting. Several expressed their willingness to make peace if the Whales would pay 1,000 blankets. This was afterward reduced to $1,000, and still later to $500.

I next visited the Whales and found that their houses were barricaded. The houses in this village are all forts, having portholes cut at intervals. I spoke to these people as I had to the Crows and found them all anxious to end the fight, because they live in the upper part of the village and could not pass the houses of the Crows to go fishing or trading. The houses in which the councils were held are about half a mile apart. I passed from one to the other a number of times, and about 3 o'clock in the afternoon the Crows agreed to make peace if the Whales would make a promise to pay in my presence and that of Shatevitch. This the Whales finally did. The amount could not be decided for some time, since it depends on the death or recovery of a wounded Crow. The excitement among the Indians of the councils was intense, but all were respectful to me. I had invited Shatevitch to go below, but he does not wish to leave his people just now; besides, his son is a Crow and he wants to meet him as he comes from the Sitka country to prevent trouble on his part. Peace having been made, the Whales and Crows will now meet everywhere, and on account of the recent deaths of their friends and the bitter feeling which still exists, it is possible that disturbances might recommence before the final settlement, and I have therefore left the corporal and 2 privates who accompanied me to this place at the Northwestern Trading Company's post to protect the lives of the trader and family, as also the property at the post, and I inclose a copy of Mr. Vanderbilt's request, as also of the orders I gave to Corporal Jacobs, in charge of the detachment. In obedience to your orders I will return to Rockwell, Alaska, and report to Lieutenant Commander C. H. Rockwell for duty.

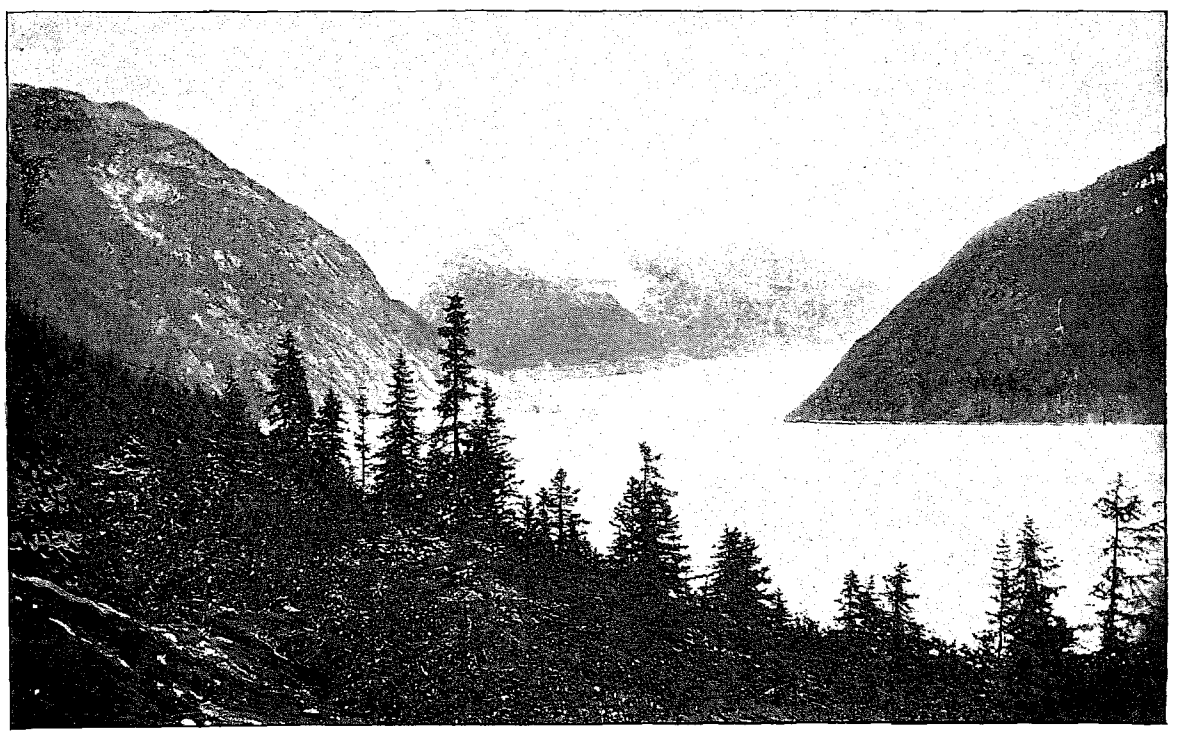
In contrast to the condition 10 years ago is the life in the log cabin villages now surrounding the Chilkat and Pyramid harbor canneries. Last summer I watched the arrival and departure of several canoe loads of Chilkats who came to Juneau on a shopping tour. The men bought generously for their wives, who were intent on having particularly gorgeous gowns, shawls, and kerchiefs for the Fourth of July, which is celebrated with great zeal in all the Thlingit villages adjacent to white settlements. One Chilkat, choosing a piece of yellow satin, produced a shoe and asked the Juneau dressmaker to make the dress to fit the woman who wore that shoe. Not possessing a paleontologist's constructive skill, the dressmaker shook her head, and the Chilkat himself served as lay figure for his absent wife.

George, the son of Chartrich, was arrested and taken to Sitka to be tried for some trifling charge. As it was in the height of the salmon season, and 6 weeks would elapse before his trial, George was released on bail, Lieutenant G. T. Emmons pledging $1,000 for his return when wanted for trial. When the government steamer, upon which George was to go back to Sitka, reached Chilkat, one of the fearful windstorms peculiar to Lynn canal was drafting down the long canyon and fiord and lashing the water to a foam. George made three attempts to reach the ship and each time was swamped or upset and obliged to swim back to shore. The ship sailed away without him, but George, paddling for a day and two nights through the lulling storm, managed to overtake the ship at Juneau and reach Sitka in time for trial.

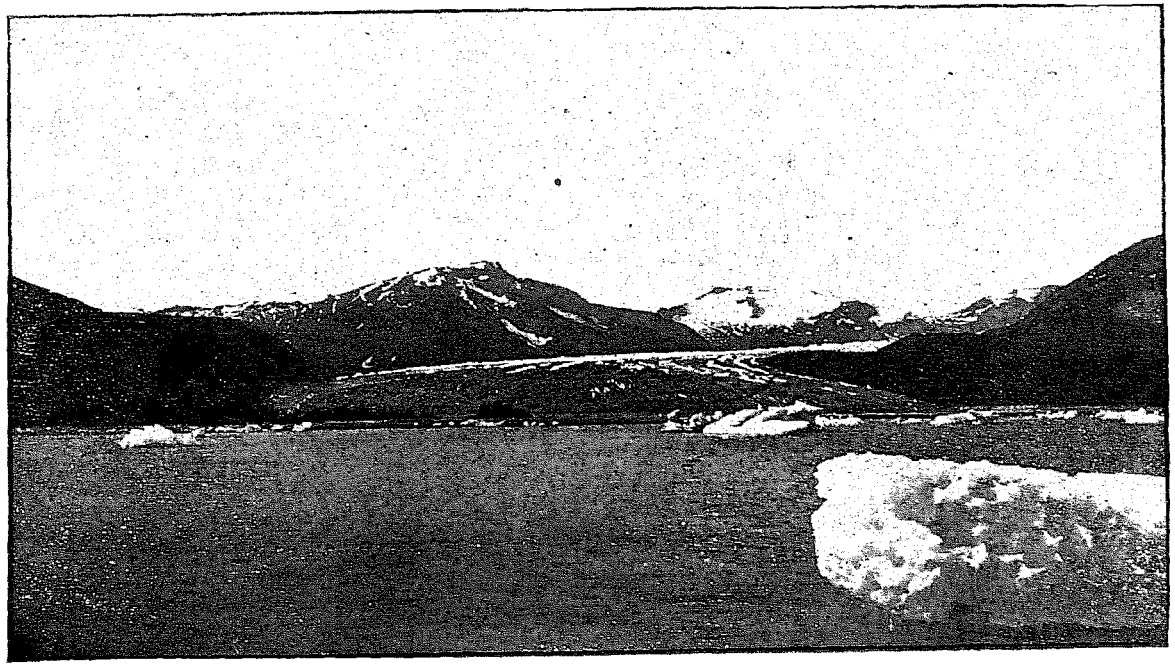
For the past 9 years Lieutenant G. T. Emmons, United States navy, has voluntarily carried on ethnological and archæological studies among these people.

Looking from Wrangell narrows the northern wall of Prince Frederick sound presents one of the famous scenic reaches of the coast. The mountains tower abruptly and glaciers pour over divides and fill the deep valleys between their peaks. The Patterson glacier spreads a frosted mantle over one great slope, and above it rises that remarkable monolith, the Devil's Thumb, named by Captain Meade because of its resemblance to that other mighty thumb on the Greenland coast. A few miles to eastward the first tidewater glacier on the coast hides at the end of a long fiord and sends out myriads of tiny icebergs to sparkle along the sound. This Hutli, or Thunder glacier of the Indians, is small as compared to the greater ice streams beyond, but it is picturesquely set, debouching from a steep canyon at right angles to the narrow Hutli bay (*a*), which is forested close to the glacier's front. It has a

a Hutli glacier and Hutli bay have since been named Le Conte glacier and Le Conte bay in honor of Prof. Joseph Le Conte, of California, by the United States coast and geodetic survey.



LE CONTE GLACIER.



NORRIS GLACIER.

frontage of half a mile on the water and the high walls rising so steeply all around it echo grandly to the falling ice. Even the stolid Stikines had imagination enough to liken these crashes and reverberations to thunder, and Hutli's rough syllables suggest a consonance and further emphasize this apt naming of the place. Prof. John Muir was among the first white men to visit this glacier in 1879 and as a scientist he has described this deeply crevassed and superbly colored ice stream, which lies less than 10 miles off the regular path of commerce.

The Baird glacier descends almost to the sea, sweeping from névés near to the source of the Patterson glacier and pouring down a broad defile that fronts upon a large bay to westward of it. With these rumpled, blue, and beautiful glaciers on the heights, and the snow-capped range rising to greater peaks as one traces its crest inland, Prince Frederick sound presents a noble panorama.

Green islands cluster along shore, often seeming to float upon the glassy waters in certain conditions of this strangely white and luminous atmosphere, and as the favorite breeding ground of whales the sound often sparkles with graceful jets of water; black backs arch and huge tails whisk in air above its surface.

Cape Fanshaw is the great landmark along these waters, and fronting to southwestward gathers about it all the storms that drift in from Cape Ommaney, the storm king of the coast. Prospectors and Indians have often been storm bound for weeks before daring to round Cape Fanshaw in their small boats or canoes. As the bubble of each new mining boom drew prospectors northward and left them stranded with its bursting, the adventurous ones drifted from Fraser river to Cariboo and Cassiar, and then began desultory search for another golden river beyond the Stikine.

In the last 15 years all the shores from Cape Fanshaw to the end of Lynn canal have been searched. Shucks, the first mining camp in Alaska, was established at the end of Windham bay, the first indentation of the coast above Cape Fanshaw, in 1876. After a few years these placers were abandoned, but within a few seasons a company has driven a tunnel under the first basin and began hydraulic mining on a large scale. There is an old Hudson Bay Company's house and an Indian village at the entrance of the bay, but the miners are 7 miles in from Stephens passage. The bay is full of rocks, ledges, and tide rips, but is a most picturesque fiord, a twin waterfall leaping from a high terrace at the end, and a broad salmon stream winding away southward. The first placer miners washed here and there along the beach, drove a tunnel, and turned the stream from its bed in the first basin, but left almost untouched this granite bowl filled with a deposit of auriferous gravel, which it is estimated can not be washed out in 20 mining seasons. A second smaller basin, 2,000 feet above the sea, holds another rich gravel bed, and the Uncle Sam basin, still farther up, is even richer.

The last basin is near the top of the divide separating Windham bay from the southern arm of the great Sumdum bay of the Indians, which Vancouver renamed Holkham bay. Placer miners were camped in Sumdum bay the season after the discovery of the Shucks basin, and the beds of old glaciers yielded fine gold dust, ground up by those remorseless mills of the gods. The magnificent Sumdum glacier faces the wide opening of Sumdum bay, and at the end of its far-reaching arms are other ice streams, 4 of which reach to tide water and send fleets of bergs adrift on its surface. Besides its many rich quartz veins, upon one group of which a mill is being erected, the Sumdum region is rich in game. On its heights the mountain sheep, or big horn, are found, those wary animals, as a rule, keeping to the interior ranges and nowhere else showing themselves along the great sea wall. The big white mountain goat leaps these peaks and crags as well, and with black, cinnamon, and grizzly bears in its forests, the bay offers much to hunters of big game who seek a camp ground.

Port Snettisham is the third camp on this mineral belt for which a great future is foretold, and beyond this inlet Taku mountain lifts its symmetrically rounded, splendidly green cone as a landmark for the entrance of Taku inlet, one of the great show places of the coast. Every variety of Alaskan scenery is presented between the inlet's mouth and the river at its far end, which was once a great artery of the fur trade. With each receding tide myriads of icebergs come drifting out of this deep recess, and the wind and currents sweep them up Gastineaux channel and beach them before Juneau house doors or carry them down to join the fleets setting sail from the Sumdum glaciers.

The long, forest-walled fiord, with snow-capped ranges behind the bold heights enfolding it, leads by many windings, with hide and seek views of far silvery ribbons and vast white plains among the clouds, to a deep basin or amphitheater in the heart of the mountains. There ice floes cover the water and glaciers of different types surround all. The steeply descending Taku glacier sweeps around a great ridge and pours straight toward one, its mile wide vertical front a vision of finely fretted, fairily fantastic frostwork. The glacier is fissured and crevassed for all its visible length, and apparently fills its rocky gorge from wall to wall, no lateral moraines being seen to mar the sharp contrast of the silvered stream and the dark granite banks. Where the front breaks so squarely into the sea, this jeweled wall rises 200 feet above its level. A party of French Alpine club members, who camped in the inlet in 1889, made some exploration of its ice streams, but Viscount de la Sabatiere and his companions did not attempt any measurement of its advance.

The Norris glacier, a couple of miles westward, is much greater in size, but is of the common Swiss type, and its dull gray lifeless front is little regarded while the Taku's sculptured and faceted wall is in range. The Norris is more broken than the Mer de Glace or the Aletsch glacier, and is six times the width of the former and

three times that of the latter, where it presses through its last gateway and turns from the gorge to descend toward the inlet and spread itself in a broad, even, deeply ribbed fan front. Only a short geological time ago this glacier broke off into the inlet, too, but it has receded until a sandy moraine more than a mile wide lies before it, and the water is shoal for half a mile farther out. Trees have begun to grow upon the farther edge of the moraine, and in midsummer acres of epilobium crimson the ground close to the edge of the ice hills.

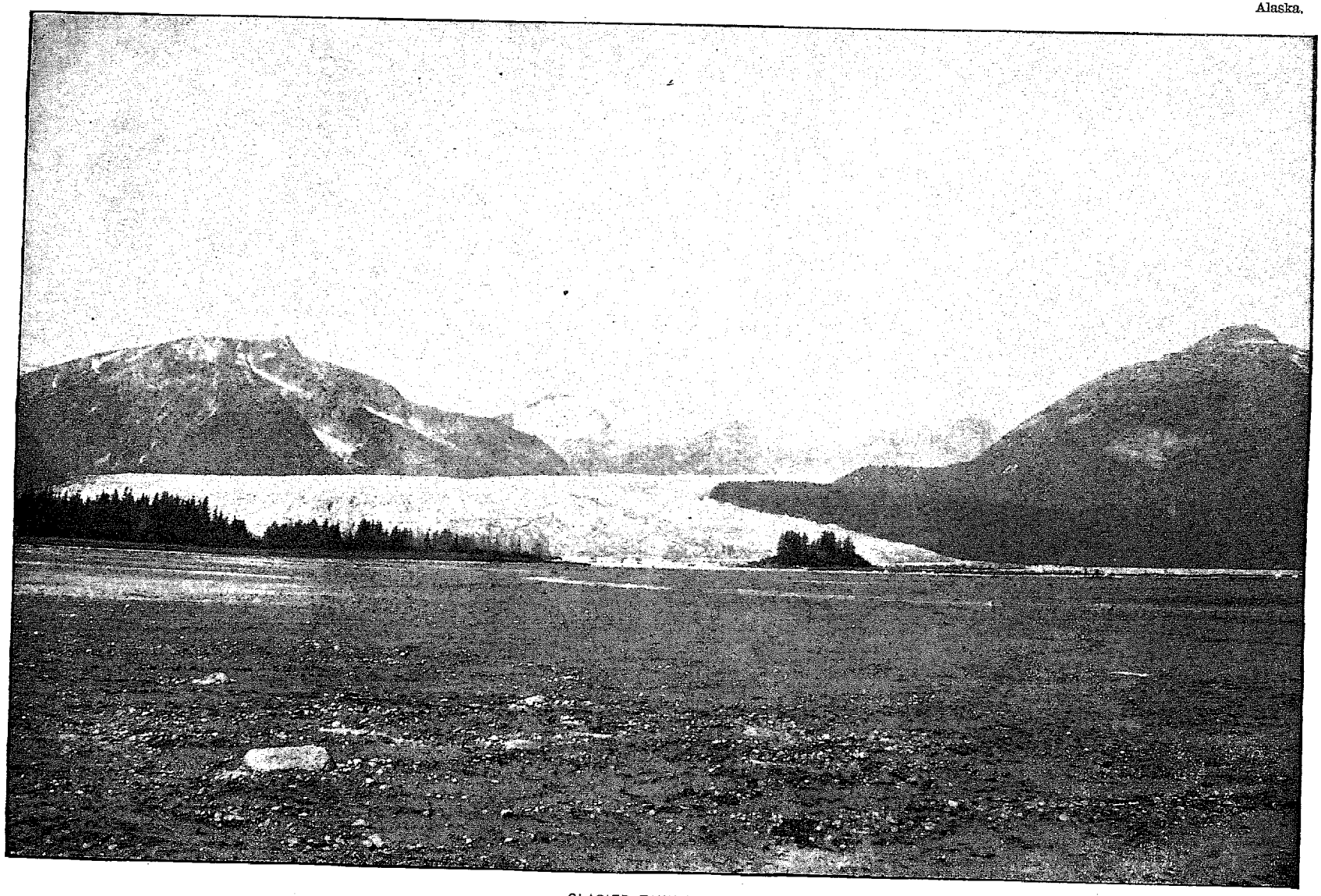
From the Taku open, where the junction of Taku inlet, Stephens passage, and Gastineaux channel brings winds and tides together in fierce conjunction at times, one may look up the long reach of the channel and see the town of Juneau lying prone at the foot of the perpendicular Bald mountain, that advances its fore foot boldly into the channel. For a dozen miles the continental shore is an abrupt, smoothly green palisade, down which snow banks stretch until far into the summer, and threads of foam slide with continuous roar. By the strangest chance and blind luck of mining discoveries the very men who made the first discoveries near Juneau in October, 1880, had prospected and camped along Gastineaux channel years before.

In the summer of 1880 some Indians brought rich quartz specimens to Captain L. A. Beardslee, United States navy, in command of the United States steamer Jamestown, at Sitka, claiming to have found them in the largest creek emptying into the narrow channel between Auk glacier and the Taku. In September Joseph Juneau and Richard Harris were grub-staked by Mr. N. A. Fuller, a Sitka merchant, and sent to the Taku region. They found Gold creek on October 1, 1880, followed its bed to the basin 3 miles inland, and discovered the rich quartz vein on its western wall, the present Campbell claim, or Fuller, the first mine. On October 4 the 2 men held a miners' meeting on the beach, elected Richard Harris recorder, and formally made entry of this first quartz location, and made their placer locations on October 12. When word of their discovery reached Sitka and Fort Wrangell the wintering miners hastily decamped for Taku mines, as they were called. A semicircle of tents lined the beach of Miners cove before the new year. The Auk Indians, who had a village 10 miles above, and the Takus, who lived 12 miles below, flocked to the new camp until bought off by blankets and induced to settle themselves in separate camps, one on either side of the white man's canvas village. The commander of the Jamestown declared martial law May 2, 1881, and with his skeleton guard of marines on shore preserved such order that the first year was the most peaceful and well ordered the place knew. The officers laid out and plotted the town site, surveyed the harbor, and made a chart of Miners cove (United States coast and geodetic survey, No. 734, 2), as the anchorage was known. After being called Pilzburg, Fliptown, Rockwell, and Harrisburg, the name of Juneau city was formally adopted at a public meeting in May, 1882. The marine guard was not maintained after the first season, and the little town becoming the resort of the most lawless and desperate characters, a vigilance committee of citizens was organized, which held this element in check until the skeleton form of territorial government was established in 1884. The semicircle of tents between the beach and the forest has grown to a neat little town of 1,253 inhabitants, with its churches and schools, a hospital and opera house, and well supplied stores. The population is greatly increased in the winter time, when many of the mines are closed down and prospectors return from their wanderings, and the Indian villages hold double the number they do in midsummer.

The mines at the head of Gold creek, 3 miles back in the mountains, have now passed from the many independent placer miners to a few large companies, one of which, the Silver Bow Basin Mining Company, bought some 50 odd claims, covering nearly the whole level floor of the basin. By a tunnel 3,350 feet long they reached the gravel deposit, 90 feet below the surface. Hydraulic monitors are tearing out a vast pit in the basin's floor, and the flood of débris leaves its gold dust in the sluice boxes as it rushes down through the tunnel. By the use of electric lights the work is kept up night and day from May to November, and the success of this hydraulic mine has determined other companies to work the old placers in the Last Chance basin, near Juneau, in the Lurvey basin, farther back in the range, and on Lemon and Montana creeks, north of the mouth of Gold creek.

The 10-stamp mill of the Eastern Alaska Mining and Milling Company is at the extreme end of the Silver Bow basin, below the foot of the Silver Quiver fall, and the ore comes to it in buckets on a wire tram that reaches up to the Jumbo mine among the clouds and eternal snowbanks of the basin's highest wall. A 20-stamp mill will soon begin its play upon the ore of the Groundhog mines beyond it, and the Campbell mill has been crushing ore for 2 seasons. There are 2 mills, the Coulter and the Webster, in Gold Creek canyon, the latter the pioneer mill of the district. Since the many small claims were acquired by a few large companies, mills and expensive plants were built, and wagon roads made along either side of the canyon, Juneau has taken on new life and counts upon a long period of prosperity. The expenses of operating and the short season discourage the development of any but rich claims, but the numbers now worked and those upon which preparations are being made for extensive work would seem to prove that the region is all that its pioneers claimed for it.

2 miles down the beach from the Juneau wharf Sheep creek canyon opens to the channel, and a wagon road winds up its steep sides and is carried along perpendicular walls as a shelf or bracket in midair to reach the Queen, the pioneer silver mine of the territory. There is a little Alpine valley or basin at the top, whose straight mountain walls are deeply grooved and glisten with glacial polish on one side and uphold a great snow field with a green gem of a glacier on the other. All the level is carpeted with flowers, and pine groves, alder thickets, and rushing streams compose the most charming landscape. The silver veins crop out on the north wall, the divide between this basin and the Silver Bow, and continuing southward reappear on the same side of the divide, between



GLACIER, TAKU INLET.

it and Grindstone creek, which empties into Taku inlet. Only one mine in this "argent district" is being worked to any extent, and its 10-stamp mill has fulfilled the prophecies of the most sanguine. Much ore has been sent to the smelter at Tacoma.

The best known mine in Alaska, the Paris, or Treadwell, is on Douglas island, 2.5 miles below Juneau. In April, 1881, 2 miners, Bean and Matthews, who reached the place too late to take up any good claims on the mainland side, prospected and staked off claims on Douglas island. John Treadwell, who advanced them $150 and took their claims as security, finally became the owner by default, and next bought the adjoining claim of French Pete, or Pierre Joseph Ernsara, for $300. For this comparative trifle he secured the largest solid body of ore known on the coast, a mountain of gold-bearing quartz, which is worked from the surface or quarried in open pits like building stone. The early history of the mine was full of incident. Squatters almost drove Mr. Treadwell away; a mob took off the Chinese miners and set them adrift in a small schooner, and only the vigilance, patience, and extraordinary character of this first owner saved the property for him. As soon as civil government was established in the territory work was begun on a large scale. The mill has 240 stamps, and, running night and day, crushes from 600 to 700 tons of ore in each 24 hours. The mill has not been stopped in 7 years, except for the short time needed to connect new machinery. The company has expended over $800,000 in its plant, and between May, 1882, when Mr. Treadwell turned the water on his little 5-stamp mill, until May 31, 1890, this mine has yielded $3,109,164.77. The operating profits have been large for a couple of years past. Over $300,000 was spent in experimenting with different processes of chlorination, and even now it is believed that more gold will be saved by some future process. The ore averages from $3 to $7 a ton in value, but is so soft, and by the situation of the mine is so easily handled, that it is milled for less than $1.25 per ton. 200 men are employed in the mine, and by the use of electric lights and both steam and water power work goes on continuously. The whole claim has been stripped of its forest cloaking, and the deadly fumes from the chlorination works have killed all near vegetation. 2 vast pits have been quarried in the hillside, and from 50 ore chutes in their floors the ore is fed to cars in tunnels beneath and run into the mill, and every tunnel driven and every shaft sunk show that the ore body extends solidly to the edge of the claim and to unknown depths. Ground up, leached, and roasted, the fine essence of the rock emerges from the laboratory in slender gold bars, while the refuse running down to the channel has been impounded to form one broad terrace beyond the original beach line, and is fast building up bars and shallows off that shore. Mr. Treadwell and his partners, Messrs. Jones, Fry, Hill, and Freeborn, were sole owners until May 31, 1890, when it was made a stock company and incorporated as the Alaska Treadwell Gold Mining Company, with offices in London and San Francisco.

The Treadwell's ditch is 18 miles in length, and one may walk along its banks and boxes, following all the curves and spurs of the island range to a point 8 miles above Juneau, seeing stakes, abandoned cabins, and marks of camps at many places in the wilderness.

Douglas city, 1 mile north of this mine, was the direct result of its successful working, and it was further built up and boomed by the promise of the working of the Bear's Nest mine, which adjoins the Treadwell property. The Bear's Nest was sold in London for $1,125,000, of which $800,000 was paid in cash. After all preparations were completed for work on the largest scale disagreements between mining engineers and stockholders resulted in its abandonment. Douglas city lost the fever of its boom, but it has retained a population of 402 souls, whose public spirit and faith in the future of the mine have not failed. The ambitious little city has steam ferry communication with Juneau, Treadwell, and Sheep creek, and its houses, crowding to the water's edge, and even beyond the tide line, ramble up a stump-crowded slope, with a church and schoolhouse at the outposts.

While every foot of the island shore has been prospected and its interior well traversed, stakes mark all the Gastineaux front, and the surveyor's map shows an extended belt of mineral claims, the Treadwell remains the one mine in actual operation on Douglas island. Nothing similar to this "bulge" or "blow out" on the side of the mountain has been found, although the same vein has been claimed to run through and crop out on every tract offered for sale within 10 miles of it, and ruined cabins, abandoned mills with rotting tramways, and wharves tell of broken hopes and disastrous ventures.

Gastineaux channel was little traversed by the natives previous to 1880, as in addition to the bar which Gold creek has built across it, until steamer navigation is arrested at that point, the great Auk glacier, 15 miles northward, has built such an effectual barrier across to the head of Douglas island that even canoes can only pass at high tide. Only a short geological time ago the ice of the Auk glacier must have filled the bed of Gastineaux channel, but it has now retreated to the mountain side, and, pouring down turbid gray streams, is reclaiming and building up tide lands on such a scale that Douglas island will soon be a peninsula, and the Auks may cross dry shod to its shores.

These barriers impose some 40 miles of extra steaming for vessels bound due north from Juneau, and, almost circumnavigating Douglas island, they may then follow the continental coast line again. Beyond the Auk the Eagle glacier gleams on the heights, a guardian rock in the form of an eagle, winning this name from Captain Beardslee in 1879. Thence Lynn canal leads to the very heart of the northland. There are glaciers in view on either side all the way along that deep, straight fiord, which is a counterpart on a larger scale of the vaunted Norwegian Lyngen fiord, and without crossing the arctic circle the tourist may sit on the deck and count glaciers

by the dozen; nor are the Lynn canal glaciers mere ribbon threads, festoons, fringes, and stalactites, pendant from one parent ice sheet, as on the Lyngen fiord.

The Davidson glacier, on the west wall of the fiord, is of the Swiss type, but the most symmetrical of its kind on the coast, and the ice stream, narrowed to a width of 3 miles where it passes the last gateway of the mountains, spreads out in the most evenly rounded, steeply sloping face to its terminal moraine, long since covered with a broad belt of spruce forest. The broad forested moraine of this glacier is such a swamp, and so full of watery pitfalls, that few have persisted in their attempts to reach the foot of the ice; but Professor Davidson, stood upon the ice some 20 years ago.

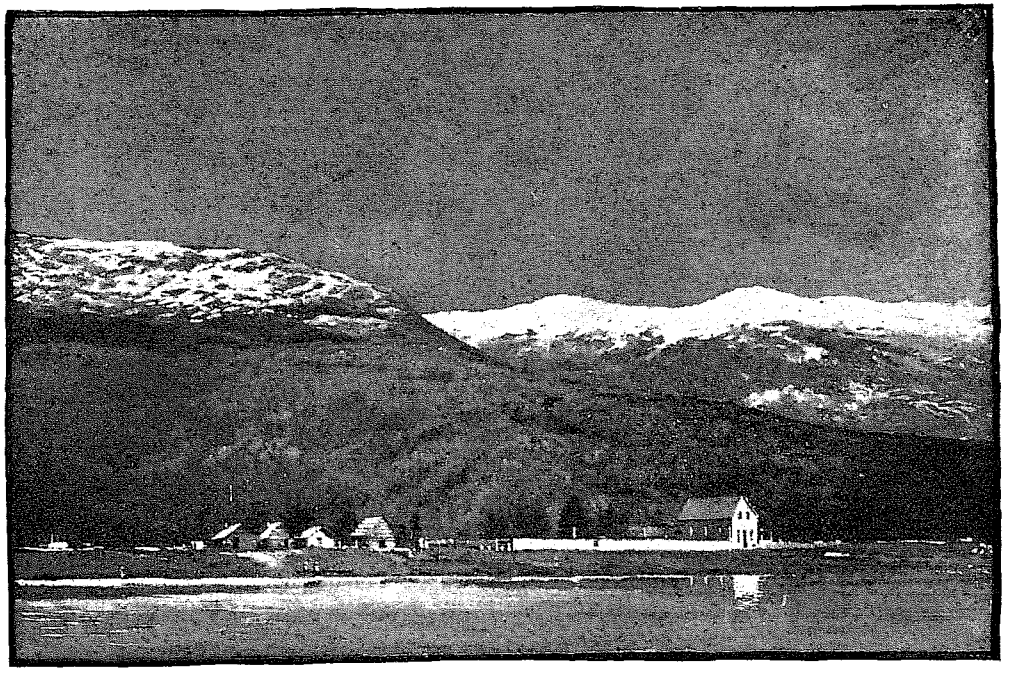
At Berners bay, near the entrance of Lynn canal and 45 miles north of Juneau, there have been 2 mining camps for several years. The placers were rich, but the attempts at quartz mining have not all been successful, the ledges lying so high up and far back from the beach that the heavy winter snows destroyed tramways and works and prevented profitable operation. The log cabins of Seward city show bravely on the shore, but it has never been large enough to become a port of call for mail steamers or to need a postmaster, communication with it being by canoe or steam launch from Juneau or Chilkat.

At the head of Lynn canal the rival canneries at Pyramid harbor and Chilkat have drawn considerable settlements about them. During the fishing season the villages up the Chilkat inlet and river contribute nearly all their people to these settlements, and Indians of other tribes make summer stays as well. Pyramid harbor is an old Hudson Bay Company anchorage, and to it came all the furs of the interior in earlier days. It is picturesquely set, and the green mountain Labouchere rises so steeply beyond the beach as to seem to overhang the place. A snowslide in the past winter wrecked one cannery and nearly destroyed the whole settlement.

Across the inlet the rival company has drawn a considerable settlement about it, and several hundred natives, 100 whites, and some 40 odd Chinese are gathered at Chilkat. 20,000 cases a year is the average output of the Chilkat cannery, but in some seasons the salmon have not been plentiful enough, or difficulties with the native fishermen have reduced the pack. The Chilkats resented the presence of white fishermen as strongly as they did the interference of Taku and Auk packers on the Yukon trail a few seasons ago, and in each case the presence of the governor and a man-of-war were required to settle the troubles. The Chilkats are a superior people, but they have had less opportunity in proportion to their numbers for enjoying the educational and mission advantages than the other Thlingit tribes.

There is a good trail leading across the peninsula from Chilkat to the Haines mission station, on the Chilkoot, the head of navigation on that arm and the miner's point of departure for the Yukon. 12 miles from Haines the trail reaches the summit of the divide, and from that point, it is claimed, is gained the most magnificent mountain view on the coast, the eye ranging over leagues of snow peaks and forested slopes threaded by glaciers, with Lynn canal lying as a silver ribbon at the bottom of its canyon. All the Chilkat country is a paradise for a landscape lover, a scientist, or a sportsman. William H. Seward was the first pleasure traveler to penetrate it, and he could not sufficiently extol its charms nor ever forget the details of his visit to the great village up the river where Professor Davidson observed the eclipse of 1869. The Doctors Krause, of the geographic society of Bremen, spent the year 1880 in a study of the people and exploration. Their sketches and maps were of great assistance to the United States coast survey, being the first work of the kind undertaken there, and their work, "Die Thlinket Indianer", is the most important contribution to the ethnology of this region since Veniaminof's time.

Late in the autumn of 1879 Prof. John Muir and Rev. Hall Young found and explored a large bay on the mainland side of Icy straits, where Vancouver had charted a straight shore line. The Hunas declare them to be the first white men ever seen in that bay, which had been a special preserve of seal and otter for their tribe for generations. Returning to the bay the next July, Professor Muir was followed in a few weeks by Captain L. A. Beardslee, United States navy, who made a hasty exploration of its lower half, and with Ensign Hanus drew the first chart of this wonderland. Captain Beardslee aptly baptized it Glacier bay, and so argued its marvels to the commander of the regular mail steamer, Captain James Carroll, that he ventured in during the July trip of 1883 and pushed his steamer to the end of Muir inlet, close to the front of the great tide-water glacier. Since then a visit to Glacier bay has been the great feature of summer excursions, and some thousand tourists have been landed for a day's stay at the glacier. This Muir glacier drains an area of 900 square miles and spreads an ice sheet 364 miles square between the mountain ranges. The ice plain, sloping down from a mountain wall 15 miles back, narrows to a width of 3 miles, where it presses through the last gateway of the mountains and rests its splintered front for 1.75 miles in the water of the inlet. 26 tributary streams unite to form this great sea of ice, and each tributary has its branches and arms. The main stream comes in from the northwest, that broad arm of the glacier stretching back for 20 miles with but one curve and issuing from névés 40 miles distant. The eastern arm of the glacier is almost dead, showing little motion and only waste. Since Professor Muir's first visit the ice wall has receded more than a mile up the inlet, and Prof. H. F. Reid, of the Case School of Applied Sciences, of Cleveland, Ohio, who made a careful study and survey of the glacier during the summer of 1890, estimates the daily advance at that season at from 7 to 8 feet a day at the center of the stream. The ice cliffs rise 250 to 300 feet from the water, and the ice plain slopes back at a grade of 100 feet to the mile. Mount Case and Mount Wright, at the east shore of the inlet nearest the glacier's front, rise to heights of 5,000 and 6,000 feet, respectively, and no greater heights



ON LYNN CANAL.

show in that quarter from the loftiest outlook. There is little vegetation on the moraines or lower slopes of the mountains, but on the heights at the 1,000, 2,000, and 3,000 foot levels there are hanging gardens, whose luxuriant vegetation is the same as that of the high mountain meadows farther south. Acres of lupin, violets, forget-me-nots, gentians, and bryanthus bloom on these sunny terraces, and mountain goat, marmots, grouse, and ptarmigan live there. Indian traditions point to a time about 20 years ago when the ice sheet extended to Willoughby island, 7 miles below the present terminus of the Muir, and the sides of Mount Wright show that the ice sheet was once 1,000 feet above its present level. At the edges of the present ice sheet, however, an older moraine is visible beneath the ice, and in its gravel and clay strata are the branches and trunks of trees that must have grown there in earlier times. On either moraine the streams are uncovering the standing stumps of old spruce trees, and these buried forests afford proof that the glacier has alternately receded and advanced in centuries past.

The steamers have never gone to the front of the larger glaciers at the end of Glacier bay proper, and only Professor Muir and a few prospectors are known to have succeeded in canoeing up its berg-strewn reaches. The ships attempting it have been glad to make an escape after a few miles of scraping and bumping, and both Professor Wright and Professor Reid had to give up their efforts in canoes, cross the peninsula on foot, and view the Hugh Miller and Pacific's long fronts from the heights. The first inlet on the west shore of the bay above Willoughby island holds the Geikie glacier, which presents a much narrower front to the water than the Muir. 5 miles beyond it the Hugh Miller glacier descends in a direct line from a great cleft in Mount Crillon's side and spreads out in a vast ice plateau that fronts for nearly 2 miles upon the water. At the extreme end of the bay the Pacific glacier draws its still longer line of ice cliffs against the sea's advance. The Pacific derives its ice mainly from the snow fields of Mount Fairweather, and, with the Hugh Miller, furnishes four-fifths of the ice that drifts down the bay.

The Hunas have always had summer fishing villages in the bay, and its seal and otter hunters have known its reaches well, but they seem to have made but little land exploration and to have applied few names. The ice spirit, Sitt'h-too-Yehk, is a power of evil, and they dread and avoid his realms. Their traditions tell of times when the glaciers have advanced and destroyed their villages and dammed up salmon streams. Icebergs, as they broke and turned, have crushed and swamped many canoes, and within a few years 6 otter hunters were swept from the beach of Muir inlet and drowned by the great waves following the fall of a section of the ice wall. The white man's settlements in the bay have been confined to the salmon cannery in Bartlett bay, just above the eastern entrance. An English nobleman hunting for bear and mountain goat camped just above Bartlett bay in 1884; Professor Wright camped at the lower end of the east moraine of the Muir glacier in 1886; Professor Muir and Professor Reid and his staff camped on the same moraine half a mile below the ice front in 1890, and a party, including 2 ladies, occupied Captain Carroll's house on the moraine the following year. The government has not yet made surveys or explorations of the bay, but private enterprise has made its wonders known, and Professor Reid's map and report upon the Muir region give much information.

Each bay and inlet along this strip of continental shore holds tide-water or alpine glaciers at its head, but none are accessible to ordinary travel. The prospector is almost the only white visitor the Huna villages ever see, and they, following the coast in canoes, whaleboats, or small schooners, report that gold is found in many places. Beyond every height shines that wondrous trinity of peaks, La Perouse, Crillon, and Fairweather, and the eye has the unusual chance of following the spurs and slopes from sea level straight to Crillon's summit, 15,900 feet in air.

Admiralty island, which is seamed by great inlets and is really an archipelago in itself, has been much visited by prospectors, who bring to Juneau news and proof of great mineral wealth within its confines. At Funter bay, on its northern peninsula, the discovery of the "tellurium group" of mines caused a small camp to spring up. The erection of and the successful results from Huntington mill have made it a permanent settlement, and the working of other mines promise soon to add to its population. The Admiralty coal mines, which were first discovered in 1868, have been rediscovered several times since, but as the benefits of the coal laws were distinctly withheld in the act of Congress of March 3, 1891, the commercial value of these lignite and bituminous veins is no more certain than when specimens and tests were shown to William H. Seward in 1869.

Killisnoo, on the little island of Kenasnow, just off the Admiralty shore, is the site of a large factory for the manufacture of herring oil and fish guano. Killisnoo was first established as a whaling station, but after difficulties with the natives the catch was changed to herrings, which are much more easily secured and managed. During the winter season schools of herrings fill Chatham straits for miles, and a steam tender tows scows to and from the seining grounds, even bringing the fish from Peril straits and Sitka sound. 1,000 tons of guano and over 150,000 gallons of oil are produced each year. During the last season a bark was loaded at Killisnoo with a cargo of guano for Liverpool, being the first ship to clear from southeastern Alaska for a foreign port loaded entirely with Alaskan products. The Killisnoo factory and settlement constitute the model industrial establishment on the coast. It is well built and tidily kept, the cottages and log cabins of the employés standing on the cleared level of the beach, and a Greek chapel and a government schoolhouse on the high terrace above them. Almost the whole island has been cleared of trees and many garden patches are cultivated. Some 45 of the Hutznahu tribe are employed in the factory, and the old chief Saginaw Jake, as native policeman, maintains order among these people and in the villages tributary to this trading post and settlement.

Chichagof island remains a wilderness, the mission station and Huna villages being its only settlements. The saltery at Idaho inlet has been closed for a few seasons, and the small fishery at Peril straits is only occupied at times. The prospectors have not reported any mineral discoveries to tempt other white settlers to the shores of Chichagof. The hot springs on Tenakee passage have great repute among the Hunas and their neighbors, the Hutznahus. There are many places along the Chichagof shores where level and even grassy lands invite cultivation, and a score of inlets that would be celebrated for their scenery in a less favored region. Chichagof island is a happy, almost untouched hunting ground, and its southern shore hems Peril straits, a matchless landscape stretch, where exciting navigation between reefs and rocks and tide rips divide attention with the green shores.

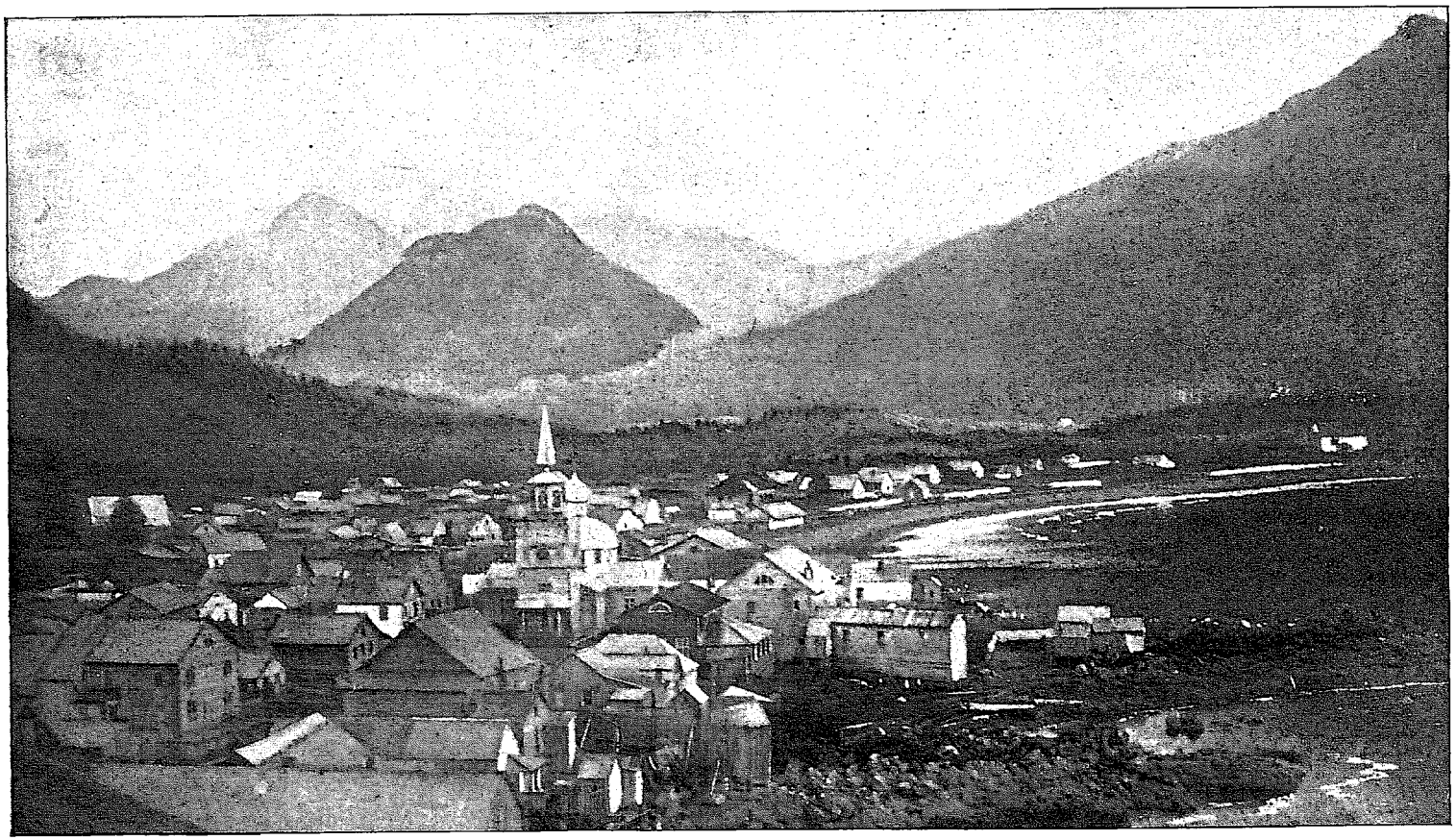
Baranof island, on which there has been a considerable settlement of whites since the beginning of this century, has never had its entire shore line surveyed, nor has it been crossed from shore to shore. From the summits of the mountains near Sitka overlapping ranges and sharply pointed peaks show that the interior is the roughest mountain country, and that the explorer following its narrow valleys and deep canyons must hew his way from ridge to ridge through the same jungle of undergrowth all the way to Chatham straits. Despite the mineral discoveries made immediately southeast of Sitka in 1871–1872 and at different periods since, prospectors do not report any rich deposit in other parts of the island. The mills erected a few years ago on Silver bay are closed, the works abandoned, and only prospecting and assessment work are being done in the Sitkan region.

Sitka, with its foreground of green islands and still waters, and its background of snow-capped mountains, is picturesque from every point of view, and its history and the traditions and relics of other people and other ways of living invest it with much charm. The neglected castle and the old tea house, each crowning a hill, hold the heart of the town between them, and the cupola of the Greek church rises greenly above the mossy roofs. Sitka is but slightly changed within these 10 years. The parade ground at the water's edge, the one street leading to the door of the Greek church, and then encircling it and following the curving shore to the mouth of Indian river, shows few new houses, and several of the older structures have disappeared. Juneau's prosperity and activity grates a little on Sitka pride, but that restless mountain mining town by the sea lacks a little of Sitka's climatic attractions. While the tramp of hundreds of nailed boots, the boom of blasts, the roar of the great stamp mill, the shriek of the little locomotives, and the puffing and buzzing of the sawmill opposite echo in that narrow fiord and fill the Juneau air with a constant undertone, Sitka broods and suns itself in silence. Its calm and lethargy are as much the result of its quiet, soothing, restful atmosphere as of any of its recent political or industrial conditions. Traditions of Russian military and naval rule survive, and its white inhabitants and the natives pursue a very even tenor, little disturbed by the semimonthly mail steamers, and soon recovering from the excitement of the summer excursion steamers.

The governor of the territory resides in one of the buildings on the parade ground, used as officers' quarters during military occupancy, and the other civil officials are housed in the barracks, castle, customhouse, and government buildings facing on the same quadrangle. The place is fast losing all traces of Russian days, and those old buildings that have not suffered neglect and demolition have been furbished up and clapboarded out of all Muscovite semblance. The castle or governor's residence has been let fall half to ruin, the ill usage and vandalism of the past 10 years leaving it stripped and despoiled of every portable feature of its interior finish, and sadly defaced. Different attempts to have the building preserved and repaired for government use have failed entirely, and as the castle plot was not made a government reservation its site may be taken up by any claimant, if the building should burn to the ground. The stockade, separating the Indian settlement from the town, has been removed, and in this decade every native house has been rebuilt or clapboarded, until the Indian portion no longer has any individuality or character of its own, and is as much a Yankee fishing village as a Thlingit village. Only the canoes and an occasional salmon rack on the beach give it any picturesqueness or color of its own.

Around the original building of the Sitka mission quite a cluster of buildings has been added, the carpenter shop, hospital, museum, extra class rooms and dormitories, giving needed accommodations for the staff of teachers and the pupils. Model cottages for the pupils of this school who have married from the mission have been built on adjoining land, and the mission is almost a separate town.

A presidential proclamation reserved the land on either side of Indian river as a public park and preserved that most interesting bit of woodland from destruction. This reserve furnishes one of the greatest attractions to Sitka's summer visitors, who reach the heart of an Alaskan forest by bridges and dry footpaths, and may marvel at its wonderful tree growths, its ferns, mosses, spreading devil's clubs, and berry thickets. The hundred spruce-clad islands of the harbor, with the cratered cone of Mount Edgecumbe drawn on the western sky beyond them, constitute another scenic pleasure ground for these visitors, and all the miles of the Baranof shores, with their magnificent mountain walls, excite the greatest enthusiasm. Jamestown bay and Silver bay are worthy the seemingly extravagant descriptions of many writers, and the latter bay matches the best of Norway's Hardanger fiord. He who climbs Mount Verstovoi and looks down upon the indented shore, the scattered islands, and the open ocean beyond, looks out over the wilderness of Baranof peaks and then across the Chichagof's ranges to the vast white tent-roof summit of Mount Crillon, nearly 100 miles to northward, finds it a picture seldom approached in the most famous scenic regions of the world. Mount Edgecumbe's summit commands a different view, but the interest of its ascent is in visiting the extinct craters. Lissiansky climbed Mount Edgecumbe in 1807, and in 1886 Professor Libbey, of Princeton college, ascended it and made a report upon its geology.



SITKA (FROM CASTLE).

The redoubt settlement of the Russians was at the end of the long, narrow Ozerski bay, and occupied the narrow neck of land between it and Glubokoe lake. The Russian saltery was succeeded some years ago by a large cannery, but for the past season this cannery has been closed and the company owning it has transferred its works to Redfish bay, some 30 miles down the coast, and the redoubt is again deserted. The Indians having wantonly destroyed the buildings at the Hot Springs, a Sitka merchant erected several cottages and a bath house and provides accommodations of the simplest kind for visitors. The waters are strongly impregnated with sulphur, soda, iron, and magnesia, and are of sovereign value in rheumatism and skin diseases. The cottages receive many invalids each year, and anglers and sportsmen find their shelter a most acceptable home camp from which to make their trips. Petition was made to have the Hot Springs tract made a government reservation, and its neighborhood promises much for the future when the growth of the different settlements and the increase of tourist travel will warrant the erection of buildings suitable to a pleasure resort and sanitarium.

In following the mainland coast beyond Cape Spencer prospectors have encountered great dangers and hardships, the Pacific beating upon a bold, rocky coast with but 2 bays of refuge between the entrance of Cross sound and Yakutat bay, at the foot of Mount St. Elias. A company of Juneau miners has been working rich placers in Lituya bay for several seasons. This bay is a most dangerous haven to reach, as the tide, rushing in in a great wave or bore, has nearly ended many prospectors' careers. La Perouse lost 2 of his boats in this bore in 1786, and many native canoes have met the same fate. The Thlingit legend tells of the two men of Lituya, evil spirits, who hide at the entrance of the bay and stretch a sail cloth across just hidden under the water. When a canoe has reached the sail the men shake it, just as they might toss a man in a blanket, and away go canoe and occupants to destruction.

There is a trail leading over the plateau and foothills from Lituya bay to Dry bay and thence to Yakutat bay. Dry bay has not been favored with any considerable camps of miners, but Yakutat bay has had its boom, and the black sand excitements of 1886–1887 made it well known to prospectors. The black sand beaches extend for miles, and with the rotary amalgamators used on the California gold beaches the miners were realizing $40 to the ton when a series of misfortunes befell them. First, thousands of dogfish were cast ashore, and under the intense summer sun poisoned the whole neighborhood, and, decomposing, saturated the sand with oil until the mercury could not act upon it. A tidal wave next washed the beach clear of this drift, but swept away the black sand, and the miners left and did not return, although the sea has since deposited the black sand in places.

The Yakutat village of 300 natives, with a mission station and a trader's store, has been little visited heretofore by whites, but the establishment of a mail route from Sitka to Unalaska gives Yakutat regular communication with the outside world for 7 months of the year. A considerable trade in furs, baskets, and curios is carried on between Sitka and Yakutat, and the extension of tourist travel to the foot of Mount St. Elias is one of the certainties of the future that will greatly improve the fortunes of this place.

In 1886 an expedition was sent out by the New York Times to explore and climb Mount St. Elias. Lieutenant Frederick Schwatka was in charge, and his assistants were Prof. William Libbey, jr., and Lieutenant H. W. Seton-Karr. The party landed at Icy bay and reached a height of 7,200 feet before they were obliged to turn back. In 1888 Mr. Harold W. Topham, of London, and his party landed at Icy bay and reached an elevation of 11,460 feet before they were driven back.

During the summer of 1890 and in 1891 joint expeditions were sent to the Mount St. Elias region by the National Geographical Society and the United States geological survey. While the final summit was not reached at either time, the observations and investigations of Prof. I. C. Russell, in command of both these expeditions, have added much to our knowledge of the geography and geology of the region. The brief exploration made by Captain C. L. Hooper, United States revenue marine, in 1890, proved that the Disenchantment bay of Malaspina extended many miles beyond any charted lines, and he took his vessel, the Corwin, to the fronts of the Hubbard and Dalton glaciers, which pour their bergs into these tide waters.

ADDITIONAL TO FIRST DISTRICT.

THE NATIVES. (a)

All the Thlingits are divided into 2 clans, Wolf and Raven. The Wolf clan is subdivided into 17 phratries, the Raven clan into 20 phratries. Each phratry has a headman or chief, whose power depends entirely on his wealth and personal influence; it was never absolute and it is steadily becoming weaker.

The phratries are scattered among the several villages according to the will of the individual; hence each village is composed of members of several phratries. A native never marries one of his own clan; the children are of the mother's clan and subphratry.

All wrongs are punished by the payment of an indemnity by the transgressor or his nearest subphratry kin to the injured or his nearest subphratry kin. If such payment is refused, the injured person or any of his friends are held to be justified in inflicting a corresponding injury on the one who had done the injury or on any one of his subphratry.

The typical Thlingit is lighter colored than the Indian, varying from yellow-white to light brown. His weight is about 145 pounds, and height about 5 feet 5 inches. Owing to the prominent cheek bones, wide jaws, and low, broad nose, the face is flat and wide. His black or brown eyes are small, and with orbits which rise in an oblique line from the nose to the temple. The mouth is large, with heavy lips and large white teeth. The facial expression, though varying much in different persons, is, as a rule, good natured and submissive. His form is badly proportioned, a long, deep-chested body, and short, misshapen legs making him physically an unprepossessing person. He walks in a slow, ungainly fashion with the feet "toed in".

The primitive native passed much of his time in a canoe, hence his defective legs and awkward movements. At the present time the canoe is no longer a necessity to a considerable number of the Thlingits, who have learned to make a better living as laborers, and these are appreciably improved in form. The members of the different tribes possess certain physical and mental characteristics peculiar to the tribe. The Sitkas having been influenced by civilization for a longer time than any of the others are of the lightest color, best dressed, and most intelligent. The Chilkats and Takus are taller, better featured, and more self-assertive than the average, and the former are particularly shrewd traders. The Auks are badly formed and unintelligent. The Yakutats are the darkest colored and most primitive. The Hutznahu are the largest in stature.

The strongest trait in the character of the Thlingit is imitativeness, and it is chiefly this faculty which has enabled him to quickly adopt the easily acquired and plainly apparent features of civilization. A willingness to work and handiness with tools, shrewd bargain driving, and quick observation complete the list of his good qualities.

Their faults are many and glaring. They are born liars and grossly immoral; drunkenness is the rule and not the exception, and all these vices have been strengthened, not checked, by contact with civilization. I have never known a Thlingit to act as if he possessed a conscience or to exhibit the least sign of gratitude. Theft is natural, but this propensity has been considerably modified by fear of the law. Gambling is usual among the men, and both sexes of all ages use tobacco.

Nearly all their barbarous customs are less strictly observed than formerly, and some have been abandoned. Slavery, though it existed as late as 10 years ago, is now extinct, so that killing a slave is no longer a part of the funeral ceremony when a chief dies, nor is that act at present a part of the festivities which attend the erection of a new house by a man of rank or wealth. In those villages where contact with the whites is most frequent none but the old people cling to the savage traditions in which Yehl is the central figure, but in the most remote villages a considerable number retain the primitive beliefs. Their belief in witchcraft and shamanism, with their attendant superstitions, is also dying out, although much more slowly.

Polygamy and polyandry are practiced less than formerly. The former custom is not general and the latter is rare.

The potlatch, one of their most interesting customs, is less frequent and extravagant than formerly. The ceremony is a grand free distribution of any and all kinds of property, usually blankets, calico, food, and money. Dancing and feasting are also a part of the potlatch, while drinking and gambling are incident thereto. The purpose of the entertainment is that the one providing it may gain high rank in the community, rank in Thlingit society being determined by the number and extravagance of the potlatches. Some of the occasions when it is considered necessary to "potlatch" are to make reparation for an injury, to become a chief or shaman, to marry, to build a house, and finally, when the native dies, the potlatch still pursues him, for his heir must provide a potlatch fully commensurate with the rank of the deceased.

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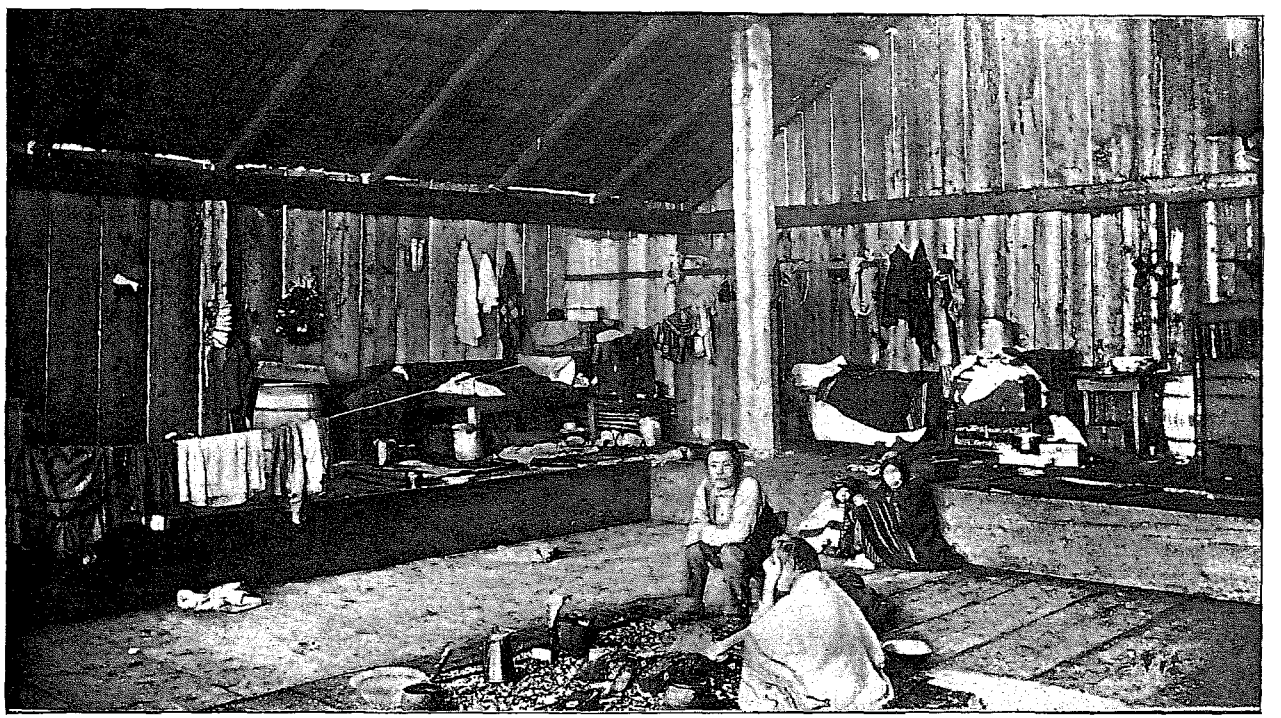
a From notes of Henry Boursin, special agent Eleventh Census.



THLINGIT HOUSE, INTERIOR.

The Thlingits still retain the disgusting custom of painting the face with a pigment composed usually of soot or powdered charcoal mixed with grease. When traveling in summer this custom is resorted to as a safeguard against the attacks of clouds of mosquitoes and sand flies, and also to protect the face from being burned by the reflection of the sun on the water. It is also used as a sign of mourning. The women daub their faces at certain periods, and also whenever their vanity demands a fairer complexion than nature has bestowed, for after the pigment is removed the skin is several shades lighter than the natural color.

The mechanical ingenuity of these people is apparent in the large, well-constructed houses, the grotesque totemic carvings, the basket work, the Chilkat blanket, the canoe, and the unique carving of metal, bone, horn, and wooden ornaments and utensils. Nearly all their carvings are of traditional or totemic subjects and unintelligible to the ordinary observer. Their fast waning faith in traditions, the adoption of modern goods and utensils, and a ready application of all the vices of civilization is causing the abandonment of totemic carving and also of weaving. The Chilkat blanket, made from the hair of the mountain sheep, is now woven by only a few of the Chilkat women.

That the Thlingits are decreasing in numbers is a well-known fact, clearly apparent in the number and size of the deserted villages, in the disproportionate birth and death rates, and by the unvarying statements of the old natives. The chief cause is syphilis. This vile disease came with the first white men. Handed down from generation to generation, the syphilitic taint is probably in the blood of every Thlingit; at any rate, the disease is so common that it is not regarded as a thing to be ashamed of. The astonishing prevalence of consumption, scrofula, rheumatism, repulsive ulcers, and necrosed bones are for the most part traceable to venereal taint.

The Thlingits' staff of life is dried salmon with seal oil, which, with berries preserved in oil, is their chief subsistence in the winter. Dried halibut is also a staple article. Venison, bear, mountain sheep, porcupine, and groundhog are dried or else boiled and preserved in oil made from hair seal, herring, salmon heads, ulikan, or porpoise. The codfish is not esteemed by them; clams, crabs, mussels, cockles, and other shellfish are in demand, particularly in winter. In April and May a certain kind of seaweed is gathered, dried, pressed in boxes, and put away to be eaten in winter. In the spring, when the sap runs, the inner bark of the hemlock is scraped off, dried, pressed, and preserved in oil. Wild fowl are not in great favor, although the different kinds of ducks are plentiful. Sea gull eggs are a great delicacy, and not less so when the egg has acquired a ripe old age. Putrid salmon and herring eggs are a luxury. Salmon and halibut heads are buried in the beach, and when putrid are taken out and boiled to obtain an astonishingly foul-smelling oil, which is considered a great delicacy. On one occasion when the wind was favorable, or rather unfavorable, I distinctly smelled an oil factory of this sort at a distance of 1.5 miles.

Vegetables, chiefly potatoes and turnips, are grown in small patches of land near the beach. Those natives who have more contact with the whites purchase an ever-increasing proportion of their food from the trader's stores. Thus, the natives at Juneau and Douglas island, and in a less degree Sitka, are largely dependent on provisions purchased from the stores.

A remarkable change in the physical characteristics of the native population strikes every observant traveler on passing the boundary separating the island regions of British Columbia and Alaska in the vicinity of Dixon entrance. The first Alaskan tribes we meet with on our northward journey belong to the Thlingit family, represented here by the subdivisions of the Tongass and Cape Fox tribes. They are superior in stature as well as general physical development to the apparently stunted, ill-fed, and squalid fish-eating tribes that inhabit the seacoast and islands of British Columbia. This may be due to ethnical differences, but can be fully accounted for in the fact that the natural conditions pertaining to a coast more exposed, and even the inland channels of great width and tempestuous waters, have produced more robust and better developed people than those inhabiting less exposed regions. These changes may really first be noticed a little south of the line among the Tsimpseans, the greater part of whom have of late transferred their homes to points within our boundaries.

Of the outward appearance of the Thlingit as well as of the Tsimpsean it may be said that while there is considerable uniformity in the general physical characteristics of all tribes on the northwest coast, a practiced eye can detect the differences between them.

The hair is coarse, straight, stiff, and dead black in color. The men wear it short, while the women allow their tresses to grow, either hanging loose around their shoulders or in two braids down their back. The shamans, medicine men or conjurers, allow neither scissors nor comb to come in contact with their matted locks, which present the most filthy and disgusting appearance. During adolescence and early manhood the males pluck out the hair from the body and face, but later in life a scanty mustache and beard are allowed to grow.

The eyes are large, in color black or dark brown, overhung with small eyebrows. Their noses are somewhat more prominent than those of their southern neighbors. The mouth is very large, the teeth white and even, but they become much worn by constant mastication and gnawing of hard substances, such as dried salmon and halibut, tough meat, and the bones and gristle of animals. The wearing down of their teeth is much accelerated by their careless way of cooking and handling their food, which often has sand and ashes blown upon it. Prominent cheek bones and a bushy growth of hair make a naturally large head appear still larger.

In former times, when their primitive mode of life required constant travel in canoes, the lower limbs of both sexes became stunted in development and distorted in shape, resulting in a certain awkwardness of gait. This feature, however, is rapidly disappearing with the introduction of habits of civilization.

The hands and feet are small and well formed, but the latter become callous and distorted from the universal habit of going barefooted regardless of season.

The complexion of all these tribes is remarkably light, a fact noted by the earliest voyagers among them, and therefore is not to be ascribed to mixture with whites. The women are well proportioned and comely in youth, with rosy cheeks, but though by no means compelled to bear more than their fair share of domestic labor, and generally warmly clad, they fade early, not in strength, but in those concomitants which constitute good looks in our eyes.

The habit of bathing in the sea at all seasons of the year, though confined to the males, who are inured to it from earliest boyhood, not only hardens the individuals, but has left its impress upon the whole race by weeding out as it were such as were unable to withstand the shock and strain and might have transmitted disease and infirmities to their offspring. As it is, disease and death from natural causes are due chiefly to reckless exposure and the densest ignorance of the laws of sanitation or the care of the sick.

As a race they are not long lived. Individuals showing the frost of age upon their locks are rarely met with, but on the other hand we must consider that deterioration of the pigment of the hair occurs with them much later in life than is the case with the scanty covering of busy brains within the sphere of enervating influences inseparable from civilized life. Blindness and granular ophthalmia are chiefly due to exposure to the glare of snow in winter or the smoke of fires always burning in either house or camp; but this only affects individuals, for as a race they possess visual organs of remarkable scope and power.

FOOD AND COOKING.

Among all the Thlingit tribes the staple food consists of fish and berries, both of which exist in the greatest abundance and variety throughout the islands and coast inhabited by them. Wherever the Thlingit dwells, either permanently or in a temporary camp, there can be seen flakes of halibut drying upon frames or salmon suspended in the smoke. The halibut is found on its regular "banks", well known to the natives, from March till November. The salmon is caught during its annual run while endeavoring to ascend to the headwaters of the stream for the purpose of spawning. Throughout this period of the year the Thlingit people, men, women, and children, are engaged in securing and preparing the harvest of the deep. The abundance of fish is such that their capture at no time taxes their time or energies to any considerable extent. The whole fishing season is with them apparently one of leisure, feasting, and rejoicing; not a period of danger and arduous labor combined, as it is with our daring fishermen on the eastern coast.

Any surplus of fish remaining from the result of the day's exertion, after immediate wants have been supplied and a due proportion has been set aside for use in the winter, is always converted into oil by a simple process. The fish is cut up small and thrown into a wooden trough or a small canoe partially filled with water. Large stones are laid upon a pile of wood, which is then ignited. As soon as the stones have come to a red heat they are lifted off by means of sticks and primitive shovels and deposited in the trough or canoe. The water boils up immediately, partially cooking the fish. The mixture is then allowed to cool, and the oil rising to the surface is skimmed off with large wooden ladles. The oil thus secured from the surface is considered of the best quality and is carefully deposited in bladders. Subsequently the half-cooked fish remaining in the receptable is taken out and pressed between planks, affording an inferior quality of oil, generally used for immediate consumption.

The oil obtained from fish, as well as that from the seal and porpoise, is used as a universal sauce for other food, into which everything is dipped. It serves to make palatable to the Thlingit at least such articles of food as could scarcely be consumed or digested without it; for instance, the hard, solid cakes of seaweed or algæ of various kinds, strongly impregnated with iodine as they are, and certainly not improved by the presence of grains of sand and minute pebbles, added to the unsavory mass during the process of curing.

The ulikan, or candle fish, is eaten fresh during its brief annual run, but the greater part of the catch is also converted into oil. The latter product is stored in wooden boxes containing from 15 to 20 gallons, and constitutes an important item of intertribal traffic.

The herring is treated in much the same manner, but this fish furnishes an additional food supply in its spawn or roe, which is collected upon spruce boughs laid upon the bottom of such shallow bights and pools as the herring frequent. This deposit is looked upon as a great delicacy, both in its fresh state and after being dried in the air. When used dry, the herring spawn is pounded to powder between stones, mixed with a little water, and beaten with wooden spoons into a creamy consistency. The same material is also boiled with herbs and berries and then pressed into cakes in wooden frames.

During the summer season the Thlingit's larder is enriched with roots, berries, esculent weeds, and one or two varieties of snails. Of strawberries, huckleberries, salmon berries, raspberries, red and black currants, salal, and thimbleberries the shady thickets and mossy swamps furnish the greatest abundance. Most of this rich harvest

THLINGIT GIRLS GAFFING A SALMON.

is garnered, to be stored as a winter's supply. The process of preserving generally consists simply of drying the fruit, but certain kinds are kept in oil, while others again are macerated and allowed to stand in wooden vessels, covered with water, and only consumed when decomposition has set in. Even the nicest strawberries or raspberries, freshly gathered, are vastly improved for the Thlingit palate by being served with a sauce of rancid oil.

Potatoes were introduced by American traders during the first years succeeding the discovery of the northwest coast, and they have always occupied an important position in the domestic economy of the Thlingit since that time. From the Russians they learned the use of seaweed as a fertilizer. Potato gardens can now be found at most of their larger villages, and the more enterprising among the people make a business of carrying these useful tubers to the settlements for sale.

Such meat as the Thlingits obtain from the animals inhabiting their forests and waters is generally consumed fresh, as they have made but little progress in the art of preserving or curing it. The meat of the deer, as well as that of the seal and porpoise, is generally boiled without salt and eaten in a half-cooked state as fast as it comes out of the pot. The excessive moisture of the climate would preclude any attempt at drying the meat for future use.

When the Thlingit first became known to our explorers the boiling of food of any kind was accomplished altogether in vessels of wood or basketwork, the material for the latter being the root of the spruce or yellow cedar. These vessels, of course, could not be set over a fire, and the boiling was effected by inserting red hot stones into the cold water containing the food. In those early times much of the meat and fat of marine mammals was eaten raw. Since their first contact with civilization these tribes have gradually adopted the use of our cooking utensils, and the above described primitive modus operandi can now be observed only in fishing camps for the purpose of extracting oils from salmon, herring, or ulikan. Not possessing metallic vessels large enough for the purpose, they utilize their wooden canoes, heating the water by the old process.

Since the use of flour has become universal among them the Thlingits have to a limited extent acquired the art of breadmaking, but most of the flour is still consumed in the shape of mush and cakes fried in grease.

CLOTHING.

The primitive clothing of the Thlingit tribes consisted almost exclusively of the skins of animals. The earliest explorers and traders of the northwest coast mention no other materials but skins, either in the shape of fur or tanned leather. Both sexes wore loose outer cloaks of fur and undergarments or coats of tanned leather. The cloaks of sea otter skins, loosely tied with latchets, attracted the notice of the first white visitors and were eagerly bought up, and the rapid growth of this traffic resulted at a comparatively early date in the abandonment of sea otter skins as an article of dress, as the whole skins could be disposed of at what seemed to be a fabulous price as fast as they could be secured.

The northern tribes of the Thlingit family, especially the Chilkats, have long possessed the art of weaving pieces of cloth or blanket from a thread made of twisted bark and the wool of the mountain goat. The warp consists of a twine of finely shredded cedar bark spun into a thread or cord. The woof is of yarn spun from the wool of the mountain goat. In making these blankets the wool is woven into a pattern representing the owner's totem with the assistance of various dyes, generally black, yellow, white, and sometimes brown. The black dye is made with charcoal and the yellow from a species of moss. The blankets are ornamented with a heavy fringe, longer at the bottom than at the sides. Ceremonial cloaks or coats were also woven in the same manner, but the advance of civilization has arrested their further manufacture.

With the sale of their furs and the consequent extinction of sea otters in their immediate vicinity the Thlingit gradually adopted the woolen blanket, purchased from traders, as their chief habiliment. They became "blanket Indians" in the fullest sense of the term, both sexes concealing whatever else they wore under the ample folds of the blanket of American or English manufacture. To such an extent did this custom grow in the course of years that the blanket became the unit of value and the circulating medium among the tribes. The commercial standing of native traders and the political importance of chiefs were gauged by the quantity of this universal commodity in their possession. An insult or crime could be atoned for by the payment of so many blankets, the number running into the hundreds in cases of homicide or infringement of marital rights.

As a circulating medium and standard of value the blanket is still used in the outlying districts, but its formerly universal use as a principal garment is slowly giving way to the cheap ready-made clothing of civilization. Among the more remote tribes of the Thlingit, who still wear the blanket habitually, these articles of dress are frequently ornamented with wide borders of red or blue cloth, upon which rows of pearl buttons, thimbles, and sometimes coins are sewn. Large silk handkerchiefs, generally black, but sometimes red or yellow, are now the favorite headdress of all females.

The early visitors to the Alexander archipelago found the natives of both sexes wearing conical or truncated hats woven of grass or finely split spruce-root and painted with totem shapes in different colors, generally black and red. From the same material blankets and mats ornamented with grotesque designs were manufactured and found in general use. They also had a rain coat or rather blanket with a central aperture for inserting the head. These garments were woven from coarse grass with the shaggy side exposed to the rain. The inhabitants of the

southern part of the archipelago substituted the more pliable material obtained from cedar bark for grass and roots. Mats and cloths manufactured in this way are still in general use throughout the Thlingit tribe, and they are applied to every imaginable purpose, from carpeting a house and lining a canoe to packing cases, bags, and coverings. In cases of emergency they also serve as garments and bedding, while nearly everything the Thlingit brings for sale to the settlement is carefully wrapped in cedar matting.

In connection with the use of mats and basket ware by the Thlingit tribe, I can not do better than to quote from the valuable contribution to Alaskan ethnology, "The Coast Indians of Southern Alaska and Northern British Columbia", by Ensign Albert P. Niblack, United States navy. On pages 311 to 313 of the report of the National Museum for 1888 Mr. Niblack expresses himself as follows:

While the Tlingit, Haida, and Tsimshian are essentially wood carvers, this is by no means their only talent. Out of the abundance of their resources they have not only adapted wood to their every need, but along with it have developed many other industries. They are, as well, expert carpenters, basket makers, weavers, and metal workers. Their tools are crude, but with them they accomplish the most surprising results. Along with the totemic system we find the identification of the individual with his totem carried out in the carving or painting of his crest on every article of personal property. The simplest implement or utensil is ornamented with some pictograph relating to the legends of the totem to which he belongs. Tattooed on the body, woven into fabrics, etched on the metal bracelets and ornaments, painted on the house fronts, drawn on the canoe outfits, emblazoned on the household boxes, carved on the huge columns, commemorated in metal, wood, and stone, the totem of the Indian is his earliest and latest care, yet it is all subservient to the ever-recurring struggle to live. In the circuit of the seasons a regular routine of duties is observed. In the time not devoted to hunting, fishing, and the procurement of food the various arts and industries are practiced. In the summer camp odd hours are spent in cutting down trees, collecting furs, bark, and grasses, roughing out lumber, and in general collecting the raw materials which, in the winter's leisure, they convert into the various implements, utensils, and finished products for their own use and for trading purposes.

RAW MATERIALS.—Various kinds of grasses are gathered, and after being dried are dyed and trimmed to finished dimensions. Spruce roots are boiled until they become pliable, beaten with sticks, and the fibers picked into threads. The cedar bark gathered for industrial purposes is from the inside of the outer bark, that for food being scraped from the trunk itself. The former is soaked in water for several days, then beaten to make it pliable enough to enable it to be stripped into shreds. * * *

Other kinds of vegetable fiber, such as wild nettle and a species of wild hemp, are beaten on the rocks, shredded, and spun with a rude distaff and spindle into a strong twine or thread. Wood for canoes, houses, columns, paddles, dishes, masks, helmets, spear shafts, arrows, floats, hooks, etc., is also gotten out during the summer season and roughly worked up in camp, the finishing being often left for the winter leisure. At this time also the trading is done to obtain supplies of cloth, horn, copper, shell, etc., for the accessories of costumes for ordinary and ceremonial occasions. Fiber of cedar bark, hemp, and goat's wool are spun into threads for use in weaving the blankets for which certain tribes are famous.

ROPES AND CORDS.—The simplest cords or lines are those of kelp, sometimes single, sometimes laid up into two or more strands for additional strength as rope. The neatest ropes and cords, however, are made from strands of spruce root or bark fiber, the small stuff being dexterously twisted between the hand and thigh. The cordage for raising large timbers and columns is regularly laid up and twisted like our own ropes. A few of the most important uses to which the different varieties of native cordage are put may be enumerated as follows: Warp for blankets, fishing lines, canoe anchor lines, sheets for sails, lashings for boxes, grommets for heads of chisels and wedges, headdresses, girdles, guys for erecting columns, and dipping lines for turning the smoke-hole shutters of the houses.

MATS.—These are made principally of bark and are used for bedding, for sails, and as covers for canoe cargoes. The coarser kinds are thrown over the canoes to protect them from the weather and as screens for building temporary camps at night in traveling. The use of mats, however, for sails and tents has given place to the substitute already mentioned, cotton sheeting. Among the Tlingit, on ceremonial occasions, the chiefs were carried on mats borne by the slaves from the canoes to the houses, or in embarking in state. Matting from the different parts of the northwest coast can be distinguished by the patterns and texture. * * * In general the mats of the southern Indians are made of soft, red, pliable cedar bark, while those of the northern are stiffer, coarser, lighter in color, and bordered with black strips interwoven into the texture of the fabric.

In regard to the emotional and intellectual characteristics of the Thlingit I again quote from Ensign Niblack's paper, pages 238 to 241, as follows:

Their habits of life are quite regular, and, when undisturbed by war, they carry on a definite routine throughout the different seasons, collecting food, furs, and raw materials at one season to serve them for the next.

They are self-possessed, dignified, and reserved, although much less taciturn than the hunting Indians of the western plains and the interior. They have the usual Indian stoicism under suffering and bear extremes of cold, heat, hunger, and exposure with fortitude. They are quite venturesome, going well out to sea in their canoes. The Kaigani go out to Forrester island for birds' eggs every spring, 20 miles off the coast. Dixon (1787) states that he sighted a Haida canoe 8 miles out at sea, and though caught in a fog it reached land in safety, as he afterward met the same party close in shore. They often make trips of hundreds of miles in their canoes along the coast and interior waters, although in early days this was not so feasible, owing to the warlike relations of the different tribes. They are fond of parade and display and are scrupulous observers of ceremony and etiquette. Many of their deadly feuds originate from trifling causes based on breaches of etiquette or custom. Dancing and singing are a part of their ceremonies of welcome, trade, and war, and to the early voyagers to this region the Indians seemed entirely given over to these exercises. Their narratives express generally the impression that these natives were aggravatingly and immoderately fond of dancing, because they could not trade with them until they had finished singing and feasting. They are equally fond of long speeches and addresses, it all being intended to impress the observer with the rank, importance, and influence of the individual who provides the entertainment. They are also great sticklers for justice and for custom. When smarting under the sense of a real injury or imaginary wrong they are cruelly and unreasonably revengeful, although ordinarily friendly. They impressed the early voyagers as being somewhat hospitable and generous, although this was largely, as now, founded upon the expectation of an equivalent return.

Their bravery is relative. If stronger than an opponent their warlike demonstrations are quite pronounced, but in the presence of a superior force they are inclined to be submissive and peaceful, although ready to take an underhand advantage. Ambush, surprise,

and superior numbers are the favorable conditions of coast Indian warfare, and no mercy is shown to women and children, except perhaps to make slaves of them or to hold them for a ransom. While slavery was practiced, before its abolition by our government in 1867 slaves were treated with cruelty.

It is the universal testimony, as voiced by Portlock (1787), that "they treat their wives and children with much affection and tenderness". In the approach to political and industrial equality of the sexes, and the respect shown for the opinions of their females, these Indians furnish another refutation of the old misconception concerning the systematic maltreatment of the women by savages. Such a thing is incompatible with the laws of nature. Good treatment of the female is essential to the preservation of the species, and it will be found that this illtreatment is more apparent than real.

By nature they are rather indolent, but their love of the power and the display incident to wealth has changed their disposition since 1775, so that they have become more enterprising. Originally the chiefs conducted the trade of the tribe, but in time the natural abilities of the other sex in driving bargains has resulted in the predominance of the influence of the women in such matters.

They endeavor to impress others with their importance, wealth, and power, but are guarded in their expressions of wonder, surprise, or enjoyment at what they see elsewhere. They have come now to rely upon European medicines in sickness. When through carelessness, recklessness, and ignorance of the laws of health they come to grief they incontinently dose themselves with all sorts of patent medicines, which they buy from the traders.

Missionaries have been comparatively successful among them, the Greek and Presbyterian churches having made considerable progress with them. The opportunities for long addresses, prayers, experience meetings, and singing in some of the Protestant forms of worship appeal strongly to native predilections; the influence of the Greek church being principally about Sitka. The missionaries, however, discourage their dancing, and have influenced them in many localities to cut down the totemic columns and abandon cremation for inhumation-at-length as practiced by the whites.

One sees many strikingly intelligent and attractive faces among the older men and women, where experience has given decided character to their expressions. The stolid, imperturbable moodiness attributed to the Indians of the interior here gives place to a more alert expression of countenance. They acquire knowledge readily and the children at school make fair progress. They are quite ingenious and especially handy with tools, picking up a trade with surprising readiness and turning their hands to almost any sort of business. They are quite imitative and progressive, but have shown good sense and conservatism in retaining many native implements and methods where better adapted to their needs. They have a keen appreciation of the value of money, work for wages, and have considerable business judgment. It would seem that with their ideas of acquiring wealth we have little to teach them in habits of thrift. Of necessity they have a good knowledge of the topography and hydrography of their region and of the habits and best modes of capture of all sorts of marine animals. On shore they are rather disappointing as hunters, as they are not at all cool-headed. Their superstitions, beliefs, and practices of witchcraft, sorcery, slavery, and shamanism do not necessarily place them on a very degraded intellectual plane when we compare their practices and beliefs with those of other savage tribes.

They possess a fair knowledge of human nature, have good oratorical powers, are communicative when diplomatically approached, have a keen sense and appreciation of the grotesque, and have a great sense of wit and humor, as they laugh immoderately at the antics of the dancers, the witty remarks of the clowns, and the grotesque carvings erected in ridicule of the whites or of their neighbors. Placing implicit confidence in the truth of their legends and the reliability of their carved columns, they have an immense respect for graphic characters. Anything written on paper or carved is, per se, credible, and they attach the greatest value to a letter of recommendation written by a white man, irrespective of the sentiments expressed by the writer.

Judged by our standard, these Indians of the north have fallen by the wayside. Judged by their primitive ethical conceptions, as compared with those of the surrounding tribes when they first came in contact with the whites, they may be said to be distinguished by the great progress they have themselves made in morals. When first visited by the early voyagers these Indians, like all others on the coast, were bold, arrant thieves. With them it was not dishonorable to steal, and if caught restitution settled the matter. On the other hand, they discriminated and seldom or ever stole from a guest and never robbed one of their own totem. With them to-day an unwatched camp or an unlocked house is sacredly respected, and the most valuable property cached in the woods, as is the Indian custom, is as safe from other Indians as if guarded night and day. Unfortunately, white men have set very bad examples in this respect, and the Indians have more often been sinned against than sinning.

They have great respect for the aged, whose advice in most matters has great weight. Some of the older women, even bondwomen in former times, attain great influence in the tribe as soothsayers, due as much to their venerable appearance as to any pretense they may make of working medicine charms. They are remarkably fond of and indulgent to their children, rarely chastising them. As between the sexes, the rights of the women are respected and the terms of equality on which the men and women live are very striking to most visitors of this region. Although marriage is essentially by purchase and the question of morality and immorality of the wife solely one of sanction by the husband, yet even this restriction is centuries in advance of their northern neighbors, the Aleuts and Koniagas, with whom promiscuity and the most bestial practices obtain. Early voyagers invariably mention the modest, reserved, and decorous bearing of the Thlingit, Haida, and Tsimshian women. Unfortunately, in recent years, the purchase of women and the practice of sanctioned prostitution have had, under the spur of artificial needs of finery and luxuries, a most demoralizing effect upon them, and, with the rum question, are the serious problem which confronts the friend of the Indian. In their inveterate addiction to gambling and their craving for tobacco and alcohol they possess simply the vices incident to savagism. In their disregard for the lives or feelings of slaves, and in their practices of compounding murder and other crimes by the payment of indemnity to the relatives of the injured, we see simply the operations of custom which with them has the force of law. Murder, seduction, wounds, accidental killing, loss of articles belonging to another, refusal to marry a widow according to law, casus belli in general, any wrong, may be righted by payment of an indemnity in the currency of the region. To such an extent was this question of indemnity carried, that when the Russians at Sitka tried to interfere with the killing of slaves on ceremonial occasions they were only successful in preventing it by ransoming the proposed victims. A narration of the exactions of the Indians for damages on account of the accidental deaths of relatives in the employ of whites would fill a chapter.

These Indians are exceedingly fond of singing and dancing, have considerable artistic taste in the use of colors, are advanced in the arts of carving, and have fair abilities in drawing and designing. Their carvings in slate show the height to which their art rises, and would seem to easily place them at the head of the savage tribes of the world, especially when taken in conjunction with their industrial development. They bathe frequently in the sea, but on the other hand continually daub their faces, bodies, and heads with grease and paint, although this latter fashion is now dying out and has almost disappeared, except as an occasional custom. They were formerly indifferent to the stench of decayed animal and vegetable matter about their houses and villages, but the influence of the whites has wonderfully improved them in this respect. They are still, however, indifferent to all sanitary laws of ventilation, and their fondness for putrid salmon noses and herring roe is very trying, while the smell of rancid grease destroys the esthetic value of many otherwise interesting curios from the region. A visit to an Indian house is to the uninitiated still somewhat of an ordeal, although

nothing to what it formerly was. Through living in such intimate relations in the houses there is an absence of a becoming sense of modesty in family life, although the offenses are chiefly to be laid at the door of the men, who in the summer months go almost naked, whereas the women dress very much the same in all seasons.

Contact with the whites has staggered and arrested these Indians in their development. They are now adjusting themselves to a new mode of life. Although much reduced in numbers, they are far from being near extermination. Much is to be hoped for in the recent establishment of industrial and other schools and in the general interest now taken in the Indians. In the prohibition and prevention of the sale of liquor to them a great step has been taken. Much more needs to be done in the suppression of prostitution, in the recognition of Indian rights to hunting and fishing grounds, and in medical assistance to a people childishly ignorant of the simplest laws of health. Their Indian doctors are fast disappearing, and with them much of the degrading superstition of an ethnical group capable of almost any rise in the scale of civilization.

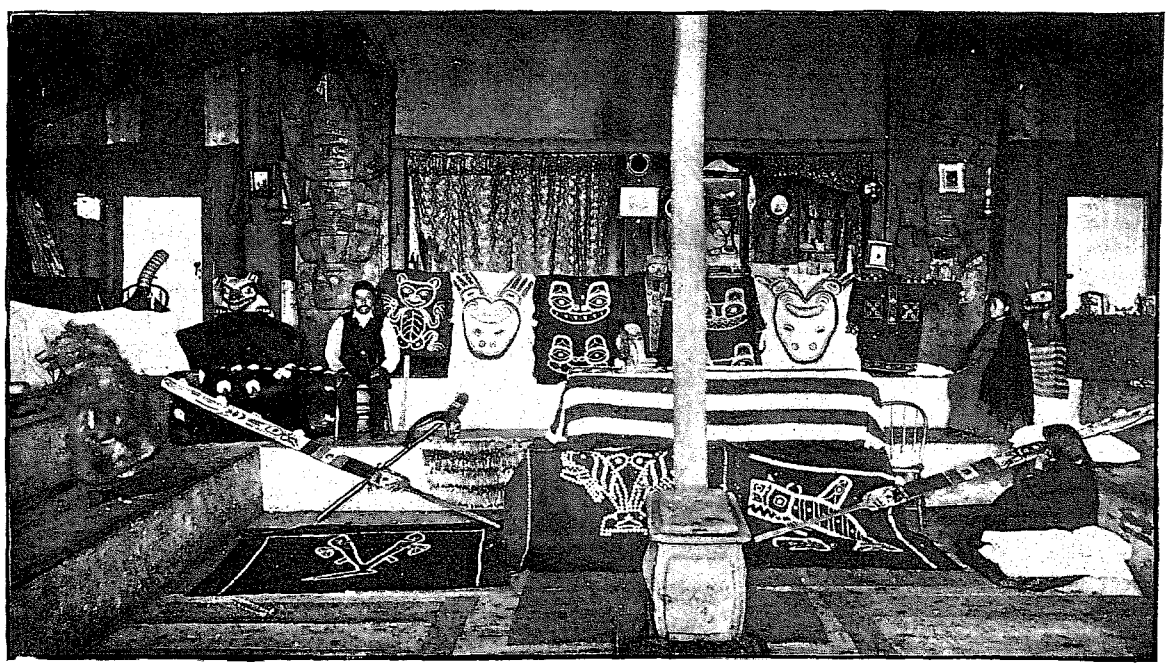
PRIMITIVE MORTUARY CUSTOMS.

In view of the rapid adoption of civilized habits by the Thlingit and a gradual abandonment of the former custom of cremating the honored dead I insert here a description of the latter process and the ceremonies attending it. It may be stated here that though slavery became nominally extinct with the acquisition of Alaska by the United States the descendants of slaves still occupy an inferior position.

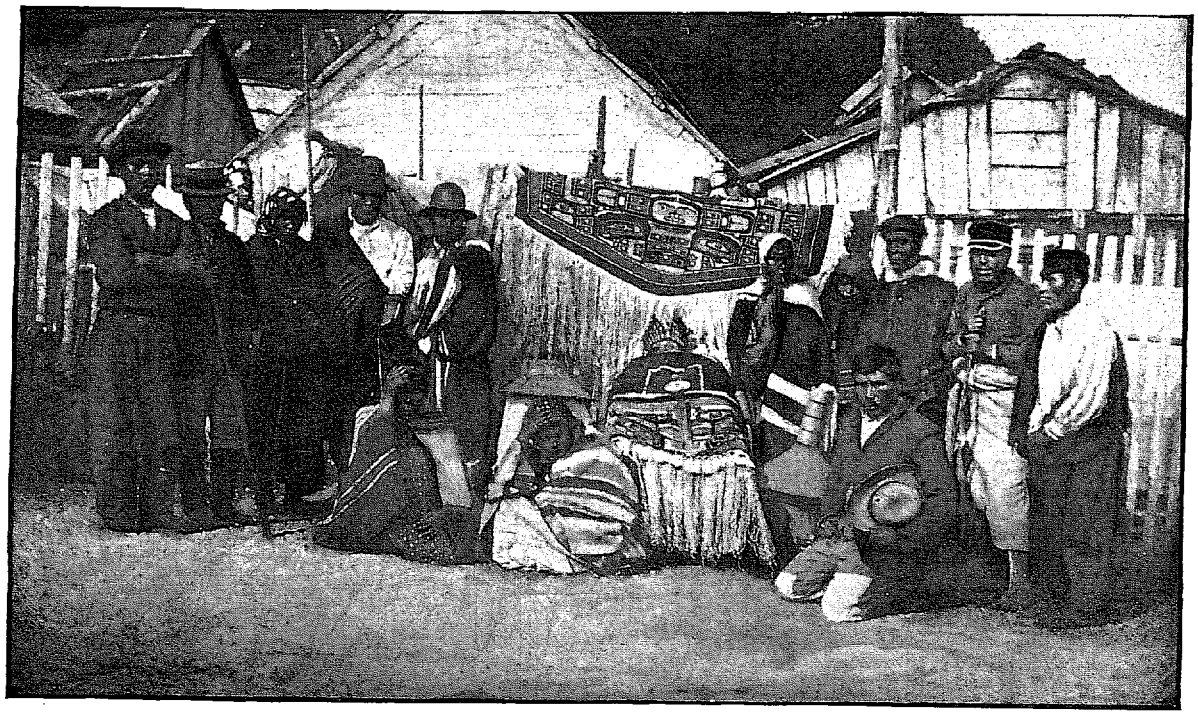
The Thlingit burned their dead upon funeral pyres, with the exception of the bodies of shamans or sorcerers, which were deposited in boxes elevated on posts. The dead slave was not considered worthy of any ceremony whatever; his corpse was thrown into the sea like the carcass of a dog. When a Thlingit died his relatives prepared a great feast, inviting a multitude of guests, especially if the deceased had been a chief or a wealthy and prominent member of a clan. The guests were chosen from a strange clan; for instance, if the deceased belonged to the Raven clan the guests must be from the Wolf clan, and vice versa. No certain time was set for the cremation or for the festivities; this depended altogether upon the magnitude of the preparations, and it frequently occurred that the corpse was in an advanced stage of putrefaction when the time arrived. Poor people who were unable to defray the cost of such ceremonies took their dead to some distant cove or bay and burned them without any display. When the guests had assembled and the pyre had been erected the corpse was carried out of the village by invited guests and placed upon the fagots. The pyre was then ignited in presence of the relatives, but the latter took no active part, confining themselves to crying, weeping, and howling. On such occasions many burned their hair, placing the head in the flames; others cut the hair short and smeared the face with the ashes of the deceased. The Thlingit of Prince of Wales island boasted of torturing themselves in the most reckless manner at the time of cremation, slashing and tearing their arms with knives and beating and bruising the face with sharp rocks. When the cremation of the body had been accomplished the guests returned to the dwelling of the deceased and seated themselves with the widow, who belonged to their clan, around the walls of the hut; the relatives of the deceased then appeared with hair burned and cropped, faces blackened and disfigured, and placed themselves within the circle of guests, sadly leaning upon sticks with bowed heads, and then began their funeral dirges with weeping and howling. The guests took up the song when the relatives were exhausted, and thus the howling was kept up for 4 nights in succession with only a brief interruption for refreshment. During this period of mourning, if the deceased had been a chief or wealthy the relatives formerly killed 1 or 2 slaves, according to the rank of the dead, in order to give him servants in the other world. This was the only indication of the existence of a belief in a future life by the Thlingit. At the end of the period of mourning, or on the fourth day following the cremation, the relatives washed their blackened faces and painted them with gay colors, at the same time making presents to all the guests, chiefly to those who had assisted in burning the corpse. Then the guests were feasted again, and the ceremony was at an end. The heir of the deceased was his sister's son, or, if he had no such relative, a younger brother.

The festivities of the Thlingit consist almost exclusively of singing, dancing, gorging, and a distribution of presents. The dance consists of very rapid motion and passionate action, according to the wording of a song or the significance of the feast. All the festivities I have thus far mentioned belong, with the exception of cremation, to occasions of minor importance; of the same class are the festivities on the occasion of moving from one dwelling place to another, which form a parallel to the house-warming of civilization; and so also are the sorceries or incantations. This subject, however, will be more properly discussed with the religious views of the Thlingit. It sometimes occurs that dancing and singing are carried on without any apparent motive, and on such occasions imitations of the actions during the greater festivities are given, apparently with the object of keeping them fresh in the memory of the people by repetition.

The festivity in memory of a deceased relative is by far the most important celebrated among the Thlingit. They call it "to glorify the dead", and frequently monuments are erected during such occasions, not so much in honor of the deceased as in memory of the feast and its giver. However, as only the wealthy are able to celebrate such feasts, and the expense is exceedingly great, they are of rare occurrence. Guests are invited from many distant settlements, and all these must not only be fed, but also loaded with presents. It frequently happens that the giver of a feast thus squanders not only his whole possessions but also the dower of his wife, the result being a life of greatest penury for himself; but he is satisfied with the honor of having celebrated the memory of his deceased ancestor in a dignified manner.



FUNERAL CEREMONIES OF THLINGIT CHIEF—LYING IN STATE.



DEAD THLINGIT CHIEF ABOUT TO BE CREMATED.

Sometimes these festivities are confined to one family, sometimes a whole settlement is invited. Long before the period agreed upon arrives messengers are sent out near and far to call the guests from distant clans or tribes, not by name, but simply saying that all may come who wish to do so. Frequently women and children accompany the guests. The house designated for the celebration is cleansed as much as possible, or perhaps a new house is erected for the purpose, ornamented within and without with the totems of the possessor. When the guests arrive the feast begins with dancing and singing, lasting until the following morning; then comes the grand repast, of which only the guests, who always begin the festivities, have a right to partake. For many days and nights singing and dancing are only interrupted by eating, and the whole celebration continues as long as the giver of the feast is able to feed the visitors. On the evening of the conclusion of the ceremonies the host, accompanied by a slave, retires to a corner of the house and is there adorned with garments used only on such occasions and kept as heirlooms in the family. The garments vary in the different clans, and consist chiefly of parts of the animal represented by the totem of the clan. This dress formerly was ornamented with sea-otter teeth, ribbons, strips of ermine skin, etc. The slave who assists his master in dressing for this feast always receives his liberty.

As soon as the host emerges from his concealment in gorgeous array, surrounded by slaves, the whole assembly breaks out into the cry of the animal representing the family totem. Holmberg states that in accordance with the peculiar tone or inflection of this cry one or more slaves were killed. Upon completion of this sacrifice the relatives of the host begin the traditional songs of their clan, singing of the origin of the family and the deeds of their ancestors. Then the host seats himself on the floor, and the presents intended for distribution are deposited before him. The distribution is by no means equal, the wealthy and the most prominent individuals receiving the greater number of presents of the greatest value, often consisting of slaves, while the poor had to be satisfied with worn-out blankets or even fractions of the same. This virtually ends the festivities, but frequently a repetition of the whole affair occurs in the next house, and so on until the whole settlement has contributed to the splendor of the occasion. As has already been mentioned, the giver of such a feast has a right to adopt the name of an ancestor on his father's side.

Another festive occasion must be mentioned, which also belonged to the more important feasts, and was intended to give social standing to the children. Great expense in the shape of presents was connected with this feast, but at present it is rarely observed. It is very similar to those already described, differing only in a few minor ceremonies. No slaves were killed on these occasions, but on the contrary a number of them, equal to the number of children in whose honor the feast was given, were liberated. For this occasion a new house was erected with the assistance of the invited guests as well as of the people of the clan. All who participated in the labor, without regard to family, received presents, while at all other feasts only the guests were thus remembered. After singing and dancing and the distribution of presents the children were introduced one by one and subjected to the operation of piercing the ears. As soon as the awl was introduced and the puncture made all persons present gave forth a hissing sound, probably with the intention of smothering the cries of the children. After the operation presents were again distributed and a final repast indulged in.

The slaves of the Thlingit all sprang from prisoners of war (but frequently the prisoners of one clan were purchased by members of another) or were born of female slaves. Though under the Russian rule wars among the Thlingit tribes became of rare occurrence the number of slaves did not diminish. The supply was kept up by barter with the more southern tribes, and at that time a majority of the slaves belonged to the Flathead Indians of the British possessions.

The slave enjoyed no civil rights whatever among the Thlingit. He could not possess property, and if he acquired anything by labor or by gift it was still the property of his master. He could not marry without his master's consent, and very rarely was he allowed to do so at all. As already mentioned, slaves were killed on festive occasions or liberated. The liberated slave was invested with the rights of the lowest grade of the Thlingit, and was counted with the clan to which his mother belonged. This rule held good with the slaves from the British possessions, as there also the natives are divided into the Raven and the Wolf clans. An able-bodied slave was rarely slaughtered on festive occasions, as he was looked upon as merchandise of the greatest value, difficult to replace. If an intended victim managed to escape or to conceal himself he was allowed to live, and might return after the conclusion of the festivities at the house of his master without incurring punishment. It frequently occurred that powerful chiefs assisted favorite slaves on such occasions to make their escape. The universal rule was, however, to select for the sacrifice only the old or diseased slaves, who were more of a burden than profit to their masters. After death the slave was deprived of the honor of cremation.

With reference to various industries of the Thlingit tribes I again quote Ensign Niblack, United States navy, in his paper published in the report of the National Museum, 1888:

CANOE MAKING.—The primitive tools used in canoe construction are so simple as to excite our surprise. The principal and almost only one used is the adze of some pattern or other. The logs for the purpose are usually gotten out in odd hours about the summer camp, the finishing work being left until winter. The trees are generally selected near some water course and felled in such a direction as to admit of launching them into tide water. The log is trimmed where felled to rough dimensions, launched, and towed to summer camp, where the preliminary work is done. Often by combined labor numerous logs are gotten out in this way at one time, made into a raft, and by means of sweeps and sails, and by dint of working the tides, brought to the village or to the neighborhood of the camps. Good trees for canoe purposes are sufficiently rare to make their selection difficult and expensive in both time and labor. The best wood

for all purposes is the yellow cedar (Chamæcyparis nutkænsis), found on the Queen Charlotte islands and in spots around the southern Alaska boundary. The smaller canoes are made from the Sitka spruce (Picea sitchensis), and the very largest from the giant cedar (Thuja gigantea). The whole process of canoe construction may be briefly described as follows: The tree is felled with an ax (formerly stone ones were used). The trimming and rough hewing is done by wedges and sledges. The rest of the work is done by patient cutting with an adze. The canoe being roughly worked out is widened in beam by steaming it with water and hot stones placed in the bottom of the canoe, stretchers or thwarts of gradually increasing sizes being forced in as the wood expands. The long spur ends in large canoes are neatly scarfed on to the body with a dovetailed joint and finished down as part of the whole. The smoothing work on the outside is often done with a chisel, but usually the interior of the canoe shows the chipping marks of the adze. The smoothing work on the exterior to lessen the friction of the water is furthered by the use of sandpaper, sandstone, or shark's skin. The conventional colors used now in painting are black outside and white inside, with a red strip on the inside of the gunwale running quite around the canoe and up on the bow and stern spurs. * * * The lines of these canoes are remarkably fine and good, and when of considerable size and intelligently handled, they are remarkably good sea boats. Trips are often made in them to Victoria, British Columbia, and the Kaigani visit the outlying islands of the Prince of Wales archipelago in the early summer in search of birds' eggs, about 25 miles out to sea.

HUNTING AND FISHING.

SALMON.—The first run of salmon occurs about the middle of July, when they swarm in myriads into the mouths of the small fresh water streams. It is difficult to picture in the mind the abundance of these fish and the mad abandon with which they hurl themselves over obstacles, wounded, panting, often baffled, but always eagerly pressing on up the streams, there to spawn and die. In some of the pools they gather in such numbers as to almost solidly pack the surface. When there is a waterfall barring their progress they may be seen leaping at the fall endeavoring to ascend it, often as many as 6 or more being in the air at once. The flesh, at first hard and firm, on contact with fresh water soon loses its color and palatableness, so that the sooner they are captured the better. The species of the first run vary along the coast. They are comparatively small, do not remain long, and do not furnish the bulk of the supply, although at the canneries now erected as many as 2,000 to 5,000 have been known to be caught with one haul of the largest seines. About the middle of August the tyee or king salmon arrives, the run often lasting the year out. When they first appear they are fat, beautifully colored, and full of life and animation; but soon are terribly bruised, their skin becomes pale, their snouts hook-shaped, their bodies lean and emaciated, and their flesh soft, pale, and unwholesome. In Wrangell narrows is a waterfall of about 13 feet. At high tide the salt water backs up the stream and reduces this fall to about 8 feet, but never less even at spring tides, but the king salmon leaps the falls and numbers of them may be found in the fresh water above. The whole of the territory on the northwest coast adjacent to the Indian villages is portioned out among the different families or households as hunting, fishing, and berrying grounds, and handed down from generation to generation and recognized as personal property. Privilege for an Indian other than the owner to hunt, fish, or gather berries can only be secured by payment. Each stream has its owner, whose summer camp, often of a permanent nature, can be seen where the salmon run in greatest abundance. Often such streams are held in severalty by two or more families with equal privileges of fishing. Salmon are never caught on a hook; this method, if practicable at all, being too slow. At the mouth of the streams they are speared or caught in nets. High up the streams they are trapped in weirs and either speared or dipped out with dip nets. The Indians are beginning now to use seines and to work for salmon on shares, but the older ones are very conservative, and cling somewhat to primitive methods in a matter even so important to them as the capture of salmon, their chief food supply.

HALIBUT.—These may be taken at almost any season in certain localities, while they are most numerous during certain months in others. The Indians make the subject quite a study, and know just where all the banks are and at what seasons it is best to fish. Often villages are located on exposed sites for no other reason than to be near certain halibut grounds. This fish varies in size from 20 to 120 pounds, and is caught only with a hook and line. This fish stays close along the bottom, and is such a greedy feeder as to be readily caught by the clumsy hook. In fishing for halibut the canoe is anchored by means of stones and cedar bark ropes. The bait is lashed to the hook, a stone sinker attached to the line, and the contrivance lowered to the bottom. Sometimes the upper ends of the lines are attached to floats, and more than one line tended at a time. A fish being hooked is hauled up, played for a while, drawn alongside, grappled, and finally dispatched with blows of a club carried for the purpose. It requires no little skill to land a 100-pound halibut in a light fishing canoe. A primitive halibut fishing outfit consists of kelp lines, wooden floats, stone sinkers, an anchor line, a wooden club, and wooden fishhooks. It is impossible, with our most modern appliances, to compete with the Indians in halibut fishing. With their crude implements they meet with the most surprising success.

HERRING AND ULIKAN.—Herring are found in the summer months on numerous parts of the coast, depending on the nature of the feeding ground. They run in large shoals, breaking the surface of the water and attracting in their wake other fish, porpoises, whales, whale "killers", flights of eagles, and flocks of surf birds, all feeding either on the herring or on the same food as that of which they themselves are in search. They are dipped out by the Indians with nets or baskets, caught with drag nets, or taken with rakes. Ulikan, or "candle fish", run only in the mouths of rivers, particularly the Skeena, Nass, and Stikine, in this region. They are considered great delicacies, and are dried and traded up and down the coast by the Indians who are fortunate enough to control the season's catch.

Cod are caught with the skil hook. Dogfish, flounders, and others are caught with almost any kind of hook, there being no special appliances used or required.

SPAWN.—For taking fish eggs that have already been spawned the Indians use the branches of the pine tree, stuck in the muddy bottom, to which it readily adheres, and on which it is afterwards dried. When dry it is stripped from the branches and stored in baskets or boxes, sometimes buried in the ground. The spawn gets a pleasing flavor from the pine. Roe is taken from captured fish and either dried or buried in the ground to become rank enough to suit the epicurean palate of the Indian gormand.

SEA OTTER.—The custom in former days was to hunt the sea otter either from the shore or in canoe parties. They were shot with arrows from behind screens when they landed to bask on the sand or on the rocks, or approached noiselessly by canoe parties when asleep on the water. Very thin paddles were used, and if the Indian could get near enough the sleeping animal was harpooned. The common custom was, however, to hunt in parties. An otter, being sighted, was surrounded by canoes in a very large but gradually lessening circle, advantage being taken of the necessity of the animal to come to the surface to breathe, when it would be shot with arrows or harpooned from the nearest canoe. The Thlingit and Haida were not so expert as the Aleut, because their canoes were not so well adapted to the exposure at sea. In recent years the few remaining sea otters have been hunted with firearms. The Indians are poor marksmen, and under the excitement of firing the instant the otter rises many accidents to their own number have happened, particularly to those on opposite sides of the circle. By a curious rule the otter and all other game belongs to the one who first wounds it, no matter who kills it. As the otter floats when killed, the same skill is not required as in seal hunting, but so scarce have they become now that not more than 40 or 50 are killed in a season throughout the northern coast Indian region.

SEALS.—Seals are hunted in practically the same way as just described, but from the fact that on account of their bodies not floating it is necessary to harpoon them before they sink the percentage of loss is very large, although they are more abundant than the otter. The Indians rely to a great extent on shooting them in very shallow water or on rocky ledges near the shore.

On shore the Indians are very poor still-hunters, and luck and abundance of game are large elements in their success. Fur-bearing animals, such as bear, lynx, land otter, beaver, etc., are generally trapped, although shot whenever chance offers. Breech-loading arms are not allowed to be sold to the Indians. With the use of muzzle-loaders we find powder chargers of bone and a percussion cap box made from the horn of a mountain goat.

DEER.—Deer are very abundant and form a large item in the food supply of the region. They are hunted in the rutting season with a call which lures them to the ambushed hunter, when they are readily shot. So effective is this call that it is not unusual to be able to get a second shot at them in case of first failure. Still-hunting is very little resorted to, and an Indian seldom risks wasting a charge until he is somewhat sure of his distance and chances. They are often captured swimming, and in winter are recklessly slaughtered for their hides when driven down to the shore by heavy and long-continued snows. The deer call is made from a blade of grass placed between two strips of wood, and is a very clever imitation of the cry of a deer in the rutting season. The wolves play great havoc in this region with the deer, and it seems remarkable that they exist in such numbers with so many ruthless enemies.

MOUNTAIN GOATS AND SHEEP.—On the mainland these are shot with very little difficulty if one can overcome the natural obstacles to reaching the lofty heights which they frequent.

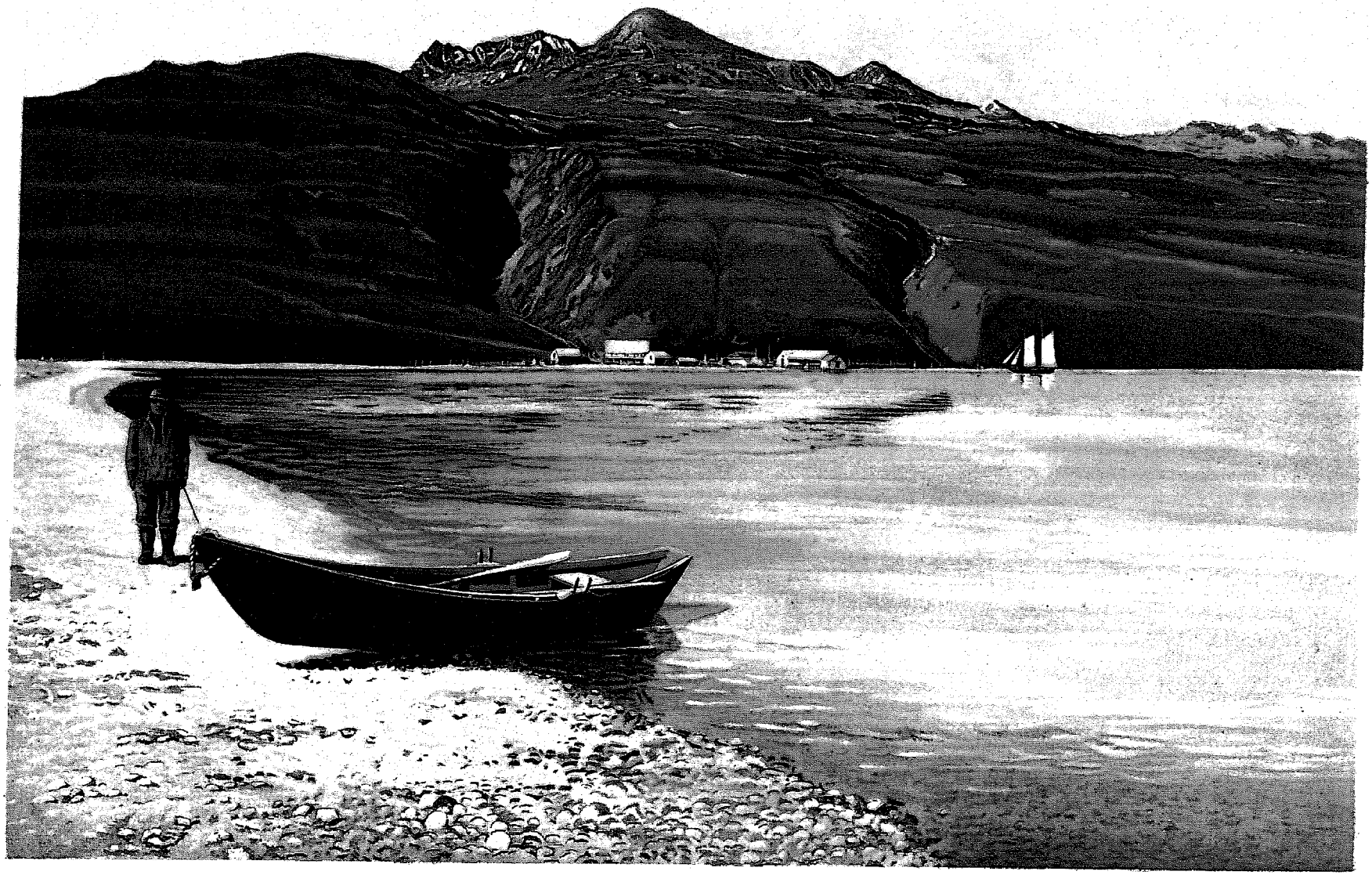
BEARS.—The brown and black bear are the 2 species quite generally found in Alaska. Both are hunted with dogs, shot when accidentally encountered, or trapped with deadfalls. The brown bear (Ursus Richardsonii) is from 6 to 12 feet long and fully as ferocious as the grizzly. The hair is coarse, and the skins, not bringing a good price, are generally kept by the Indians for bedding. This fact, coupled with the natural ferocity of this species, has led to the brown bear being generally let alone. An accidental meeting in the woods with one of them is regarded as a very disagreeable incident by an Indian. When women and children run across bear tracks in the woods, in deference to a generally recognized superstition, they immediately say the most charmingly complimentary things of bears in general and this visitor in particular. The origin of this custom is given as follows:

The bear was formerly rarely hunted by the superstitious Thlingit, who had been told by the shamans that it is a man who has assumed the shape of an animal. They have a tradition to the effect that this secret of nature first became known through the daughter of a chief who came in contact with a man transformed into a bear. The woman in question went into the woods to gather berries, and incautiously spoke in terms of ridicule of the bear whose traces she observed in the path. In punishment for her levity she was decoyed into the bear's lair and there compelled to marry him and assume the form of a bear. After her husband and her ursine child had been killed by her Thlingit brethren she returned to her home in her former shape and narrated her adventures.

This legend is found in other forms throughout the coast. In conclusion, it may be said that the brown bears are expert fishers and frequent the streams in the salmon season along their well-beaten tracks, which form the best paths through the woods.

The black bear (Ursus Americanus) is, on the other hand, rather timid and eagerly hunted, not only for his valuable black skin but for his flesh, which, when young and tender, is very palatable. In the spring they are readily killed along the edge of the woods when they come out to feed on the first sprigs of skunk cabbage and other plants brought out by the warm sun. Later in the summer they are found along the streams, where they feed on the dead and dying salmon.

Taking it altogether, the Indians are expert fishermen but poor hunters, indifferent marksmen, and wanting in that coolness and nerve for which the hunting Indians of the interior are famous. Besides the animals hunted for their skins, as mentioned, there may be added the fox, wolf, mink, marten, land otter, and an occasional Canada lynx and wolverine on the mainland. The method of dressing the skin is not different from that of the interior Indians, so generally described in works of travel.



FISHING STATION ON SITKHLIDAK ISLAND.